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ANNUAL PLANNING REPORT
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Table of Contents--Narrative

Page

I. Introduction and Overview.......... 1

II. The National Recovery and North Dakota.......... 6

III. Agriculture.......... 15

IV. Falling Oil Prices.......... 23

V. Construction.......... 27

VI. Manufacturing.......... 32

Table of Contents--List of Figures

Figure I: Consumer Price Index.......... 37

Figure II: Rural and Urban Population.......... 38

Figure III: Population Projections by Age.......... 39

Figure IV: Map of North Dakota Counties, Regions, and Reservations.......... 40

Table of Contents--List of Appendices

Appendix I. Population.......... 41

- Table 1: Population by Age, Sex, and County, 1980.......... 43
- Table 2: Urban and Rural Population by Age and Sex, 1980.......... 47
- Table 3: Population by Age, Sex, and SMSA, 1980.......... 48
- Table 4: Enrollment in Grades 7-12 for the 1982-83 School Year, and Percent Change in the Number of Seniors, 1979-1983 by County.......... 49

Appendix II. Labor Force.......... 51

- Table 5: North Dakota Civilian Population and Labor Force Estimates by Sex and Age, 1982.......... 53
- Table 6: North Dakota County Labor Force Annual Average, 1982.......... 54
- Table 7: North Dakota County Labor Force Annual Average, 1981.......... 55
- Table 8: Civilian Non-Institutional Labor Force, Long-Term Unemployment, and Work Disability.......... 56

Page

Appendix III. Employment and Employment Projections 57

Table 9: Percent Distribution of Off-Farm Work Characteristics of Farm/Ranch Operators and Spouses for the North Central Region and the United States, 1979 59

Table 10: Nonagricultural Job Insurance Covered Wage and Salary Employment by Industry and County, 1981 Annual Averages 60

Table 11: Nonagricultural Wage and Salary Employment by Community and Sex 61

Table 12: Nonagricultural Wage and Salary Employment in North Dakota by Major Industry, History and Projections 62

Table 13: Nonagricultural Wage and Salary Employment by Industry, 1980 and 1990, for North Dakota 63

Table 14: Total National Employment by Industry, 1978 and Projections to 1990 64

Appendix IV. Occupation 65

Table 15: Occupations of Employed Persons by Age and Sex for the United States, 1982 67

Table 16: Occupations of Employed Persons by Age for the United States, Percent Change 1981-82 71

Table 17: Females by Age and Occupation as a Percent of All Employed Persons in the United States, 1982 72

Table 18: Summary of Occupational Employment Statistics for Mining in North Dakota, 1977 and 1981 73

Table 19: Summary of Occupational Employment Statistics for Construction in North Dakota, 1978 and 1981 74

Table 20: Summary of Occupational Employment Statistics for Manufacturing in North Dakota, 1978 and 1980 75

Table 21: Summary of Occupational Employment Statistics for Transportation, Communications, and Public Utilities in North Dakota, 1979 and 1980 76

Table 22: Summary of Occupational Employment Statistics for Wholesale Trade in North Dakota, 1976 and 1980 77

Table 23: Summary of Occupational Employment Statistics for Retail Trade in North Dakota, 1976 and 1980 78

Table 24: Summary of Occupational Employment Statistics for Finance, Insurance, and Real Estate in North Dakota, 1976 and 1981 .. 79

Page

Table 25: Summary of Occupational Employment Statistics for Services in North Dakota, 1978 and 1981 80

Appendix V. Earnings, Income, and Expenditures 81

Table 26: Personal Income in North Dakota, 1978-1981 83

Table 27: Personal Income in the United States, 1979-1981 85

Table 28: Percent Distribution of Personal Income in North Dakota and the United States, 1979-1981 86

Table 29: Percent Change in Personal Income in North Dakota, 1978-1981 87

Table 30: Percent Change in Personal Income in the United States, 1979-1981 88

Table 31: Total and Average Personal Income by Type of Earner for the United States and North Dakota, 1975-1980 89

Table 32: Covered Employment and Average Monthly Earnings Per Job by Industry for the United States and North Dakota, 1979... 90

Table 33: Job Insurance Covered Earnings by Industry for North Dakota, 1978-1981 91

Table 34: Nominal and Real Earnings Per Job in Covered Employment by Industry in North Dakota, 1978-1981 92

Table 35: Covered Employment, Average Monthly Earnings Per Job, and Total Earnings by Industry and Quarter in North Dakota, 1981-1982:II 93

Table 36: Selected Family Characteristics and Expenditures by Pre-Tax Family Income, 1972-1974 94

Table 37: Consumer Price Index, All Urban Consumers, All Items Index. 97

Appendix VI. Poverty 99

Table 38: Persons Below the Poverty Level by Age and County, and Persons Below 125 Percent of the Poverty Level by County, 1979 101

Table 39: Low Income and Dependency in the Population by County, Data from the 1980 Census 102

Table 40: Low Income and Population Change by County, Data from the 1980 Census 103

Bibliography 105

I. INTRODUCTION AND OVERVIEW

One of the most often highlighted observations about the 1980s is that it is the decade during which the baby boom generation will reach maturity. The aging of the group of individuals born between 1946 and 1965 will mean that by the end of the decade nearly a third of North Dakota's population will fall into the age group 25-44.

For some forecasters, the massive shift in the population's age structure means that our labor force is gaining work experience and becoming more productive; our population is becoming wealthier as a result of the types of jobs typically held during mid-life; and as a group, the baby boom generation aspires to the same types of consumption patterns--especially when it comes to housing--typical of the previous generation of middle-aged individuals. However, given the outlook for job growth in North Dakota, it is not quite so certain that these kinds of assumptions are useful in guiding policy decisions about the labor market.

The age group 25-44 in North Dakota is projected to grow by 3,400 during each year of the decade. While our labor force data indicates that not all of these individuals will seek work, participation rates for both males and females are highest for individuals at mid-age. Moreover, there are people who would enter, or people who recently lost their jobs who would reenter, the labor force if they believed there were job opportunities available. Another source of labor during the decade are baby boom females who are expected to return to the labor force after a period of child rearing. And finally, a continuing source of labor is expected to be people who lose their farms or ranches, but are too young to retire. Since 1978, when Census Bureau data indicated that the state had 41,169 farms, it has been estimated that the number of farms has declined at a rate exceeding 500 per year. The rural to urban migration of farm operators, their spouses, and children will continue to be a significant source of new wage and salary labor for the duration of the decade.

While the supply of labor is expected to remain fairly large during the 1980s, job growth has been slow during this decade, and although improving during the 1983-84 period, jobs will not be available for many who need them. The number of wage and salary jobs increased by an average of 8,300 per year during 1975-80. In comparison, 3,000 or fewer jobs are expected to be added per year during 1983 and 1984, with no significant increase over the late 1970s in the need for replacement (i.e., retirement based) labor.

One purpose of the Annual Planning Report is to outline the nature of the demand for labor during the near future, especially in industries exporting goods from the state. The forecast problem is viewed as one involving the projection of both export demand and production costs. A chief ingredient in production costs is the cost of money, and the role of interest rates is highlighted in each of the text chapters.

Following the introductory comments are five text chapters. Chapter II outlines what we believe are some of the main problems facing North Dakota as a result of national economic circumstances and discusses some of the indicators that should be monitored as we anticipate future growth rates.

Chapter III focuses on agriculture. The available data suggests that the "farm supply" industry is experiencing a period of decreased sales due to increases in USDA-administered reduced acreage programs. Main street businesses providing goods and services to farm families, on the other hand, are not suffering as much as they did during the drought of 1979-80. Already low wheat prices are forecast to grow at a slow rate, slightly above the rate of inflation, through 1984, with meat prices rising somewhat faster in response to more jobs being created in the U.S. as a whole. The recovery of the world economy, especially among developing nations, is probably the single most important indicator of future world trade in agricultural commodities. Net farm income in North Dakota is expected to grow only moderately during 1983 and 1984.

One of the building blocks of the economy, and a chief production cost item in agriculture, is energy. Declining oil prices, if passed on to the consumer, are viewed as one of the principal reasons for improving the economies of farm producers and their customers--especially customers among developing nations.

Chapter IV documents the recent decline in employment in the mining industry and focuses on near-term employment prospects. It is clear from the literature that the resources of the Williston Basin and the Fort Union coal formation have much to offer future regional and national economic development.

The mining industry is climbing slowly out of a bust cycle, and we expect that the demand for energy and employment in this area will increase as economic activity nationally and regionally accelerates. As long as interest rates remain lower than they were last year, the demand for energy in general should increase.

One of the chief competitors for money is the construction industry, and, in a sense, the construction industry's success in competing for credit acts as its own constraint. Interest rates rise, in part, because home loan borrowers compete successfully in the credit market.

In North Dakota, interest-sensitive housing industry and municipal construction declined during the national recession. Over the same period, however, several thousand jobs were created at energy conversion facilities and at pipeline construction sites. The trend in heavy construction for 1981, 1982, and 1983 has been one of increasing importance in total construction employment. However, the available forecasts indicate that project completions will bring many heavy construction jobs to a close in 1984. Although North Dakota will continue to participate in the national increase in housing starts and in the anticipated increase in commercial building, it is not a certainty that energy-related job loss will be compensated for by job growth in other segments of the construction industry.

Nationally, increased sales of durable manufactured goods, such as automobiles, is heralded as strong, positive evidence of a turnaround in the economy. But in North Dakota, the manufacturing industry accounts for only 6 percent of all jobs, and almost half of those jobs are tied directly to the volume of equipment purchases made by farmers in the northern prairie states and provinces. This spring's survey data indicates that local farm equipment manufacturers are beginning to add more hours to production employees' work weeks. However, despite the need for farm machinery, demand has been constrained by high interest rates and low commodity prices. Without a rapid turnaround in farm prices, we do not expect durable goods employment to show evidence of substantial growth during either 1983 or 1984.

On the other hand, as we document in Chapter VI, nondurable goods manufacture--in particular, food processing--has shown consistent growth even during drought and recession years. This industry should show moderate but steady employment growth as the national recovery increases the demand for food.

While the text of the *Annual Planning Report* highlights industries associated with export markets, and the construction industry is indicative of the volume of capital investment being made in North Dakota, our appendix tables are more broad-ranging.

Appendix I contains four tables on the state's population, with graphic displays in Figures I through IV illustrating the spacial distribution of the population and forecasts of population development.

Detailed 1980 census data on the labor force, as well as more current estimates of labor force participation and unemployment, are provided in Appendix II. The tables in this section illustrate historic employment trends for each wage and salary industry and provide a forecast of employment growth for North Dakota and the nation. The forecast for North Dakota shows, for example, that the most rapidly growing industries are services, retail trade, and wholesale trade--industries responding to employment and earnings growth in the primary industries discussed in Chapters II through VI.

Employment growth alters the demand for labor in terms of the skills required of the labor force. Appendix IV provides baseline information on the occupations of job holders in most of North Dakota's industries. (More detailed occupational information is available in other Job Service publications.) National demographic and occupational data for 1982 are also available in this appendix.

Job-related income and total personal income for North Dakota and the nation are given extensive coverage in Appendix V. Tabular data on poverty, the number of working age persons as opposed to dependents in the population, and population change by county from the 1980 Census are found in Appendix VI.

During 1983 and 1984, we expect to see little growth in the net number of jobs in comparison to recent historical standards. Even so, segments of the economy are expanding while others are contracting, and turnover and replacement needs represent significant segments of labor market activity. The labor market is still the crossroads for the economic security of most families, and its performance is one of the key determining factors in the success of most firms. Thus, even though the much sought-after, rapidly expanding economy continues to elude the state, it is apparent that the efficient operation of the labor market can make significant contributions to the functioning of the state's economy as a whole.

> North Dakota, major farm belt contributor to the nation's agricultural output, has traditionally based its economic development on the success of its farming sector. In recent years, however, the petroleum exploration and production industry has gained increasing importance in the state's economic growth. The volatility of prices in both of these areas, therefore, brings a vulnerability to the North Dakota economy that is totally dependent upon external factors. It follows, then, that projections of the future path of prices for both agricultural and petroleum products determined, to a large extent, the projected future path for North Dakota's economy . . .
>
> "Executive Budget for the State of North Dakota, 1983-85 Biennium"

II. THE NATIONAL RECOVERY AND NORTH DAKOTA

A recent Commerce Department publication pointed out that " . . . manufacturing export related jobs constituted 4.7 percent of the nation's total work force in 1981." (News, 1983a) Tabular data from the report shows a scant 2.6 percent of North Dakota's total labor force to be employed in jobs related to manufactured exports. These numbers by themselves might create the impression that North Dakota's economy depends on neither the national nor the world economy for its vitality.

But with an extremely small population relative to the productive capacity of its economy, North Dakota has always been an export state. And employment in North Dakota is becoming increasingly tied to national and international markets and policy decisions. In contrast to ten years ago, when 44 percent of the nation's wheat was being exported, we now export 66 percent (1980-81 marketing year) of an expanding wheat crop. Moreover, as North Dakota agriculture diversifies and expands into new products, it must also expand into new markets in different parts of the world. Agriculture in North Dakota is accomplishing this task with fewer farms, less local labor, and more imported capital.

A dynamic, increasingly capital and energy intensive agriculture has had the effect of tying its profitability ever closer to national and international credit and petroleum markets. [1]

The cost of farming in North Dakota has always been determined on a national-local basis. The prices farmers received, however, were generally determined internationally. As the importance to the agricultural production process of locally supplied resources (in particular labor) has declined, the importance of internationally priced capital and petroleum-based inputs has increased. As the cost, first of petroleum and second of capital, has escalated, the gap between gross agricultural sales (depressed by world recession) and net farm income has begun to close.

The long-term outlook is for an even greater participation of agricultural goods in the total national export market, and a greater dependence on international factors for profits. "In less than 20 years, population in the developing countries will grow to more than 5 billon--greater than the entire world's population today." (Walsh, 1983:2) Although the domestic market is an important consumer of agricultural products, future markets are expected to become increasingly dominated by international demand.

The rapid rise in petroleum prices during the 1970s was not without its benefits for North Dakota. Betweeen 1972 and 1978, North Dakota became a net exporter of energy. "Further sharp price increases that have occurred since 1978, along with oil and coal production gains, must certainly have solidified the position . . . of . . . North Dakota as (a) net surplus (energy) state." (Nelson, 1981:6) But one of the consequences of diversifying into energy and developing lignite, oil, and natural gas, is that North Dakota's economic well-being has come to depend more heavily on the basic economic vitality of the nation. How much future employment there is in mining depends almost exclusively on what happens at the national and international levels.

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[1] The average value of land and buildings for North Dakota farms grew by four times to $356,788 between 1969 and 1978. During the previous ten years, the value of land and buildings escalated by a factor of only 2.2 times.

Expenditures for petroleum and petroleum-based products also grew rapidly between 1969 and 1978 in comparison with other items such as feed and hired farm labor. The amount spent on commercial fertilizer, for example, grew by a factor of 4.9 to $150 million in 1978. The amount spent on other agricultural chemicals grew by 8.7 times the amount spent in 1969, expenditures for all petroleum products grew by 2.4 times with expenditures for diesel fuel growing by 3.4 times (for farms with sales of $2,500 or more).

In contrast, farmers spent $70.9 million on hired farm labor during 1978, an amount only 2.2 times as large as that spent on labor in 1969. (See Census of Agriculture, 1981, Tables 1, 6, and 7.)

The recent sharp tumble in oil prices, a slowdown in the growth of world grain traffic, and persistent high real interest rates (real interest rates = interest rates - inflation rate) suggests that the more diversified and capital intensive North Dakota's economy becomes, the more sensitive its industries are to national/international economic cycles.

Although we know that less than 3 percent of the state's labor force is employed directly in export-related manufacturing jobs, an unmeasured additional segment of the population is employed in the sale of energy and agricultural goods. The price, volume of movement, and cost of production for these goods are all determined outside the state.

There are additional sectors in North Dakota's economy affected by a national recovery. The Federal Reserve Bank of Minneapolis indicates, for example, that the Ninth District will benefit from a national recovery which has " . . . in part been fueled by falling oil prices . . ." (Quarterly Review, 1983:20) Primary beneficiaries of reduced oil prices will be heavy users of fuel, especially farmers. But more broadly, the report suggests, price cuts in oil could result in a savings to consumers equivalent to the 10 percent federal personal income tax cut scheduled for July. These savings translate into increased spendable income for consumers and should result in increased retail sales and increased tourist industry activity. In other areas, the report points out, declining interest rates will have a direct, positive impact on the housing segment of the construction industry. Durable goods orders should show an upturn, and on the whole, ". . . nationwide demand for district goods and services will be stronger than expected" by previous forecasts. (Quarterly Review, 1983:20) Although North Dakota may not benefit as substantially as other states from an improving national economy, the recovery should have an observable, positive impact on employment and production costs in the state.

The conventional forecast for recovery during 1983-84 is one which is based on lower interest rates through the summer of 1983. Lower interest rates will bring about consumer spending, especially on autos and homes. The money spent on these items fosters employment as it works its way through the steel, glass, lumber, and textiles industries. Increasing employment and demand for goods and services will bring about a growth in the overall supply of money. With a rapid rate of growth in the supply of money prices should begin to rise in response to increased demand. It is this concern over the rate of growth in the money supply, and the potential it has for creating high inflation, that is likely to stimulate the Board of Governors of the Federal Reserve System to raise interest rates. An attempt to bring the elements of money growth, potential inflation, and interest rates into some sort of optimal equilibrium is likely to have a negative effect on jobs and profits in North Dakota, especially in agriculture and construction.

"The minimum requirement for a new expansion to get going and stay going is that interest rates do not rise too soon by too much." (Zarnowitz, 1983a:19) But establishing that optimum level of interest rates is not exclusively in the hands of the Federal Reserve Board. High rates of money growth now, or high anticipated rates of money growth, can have a dramatic effect on the rate of inflation in years to come. This is not only a concern of the Federal Reserve Board, but of private lenders as well.

Private lenders are intent upon ensuring that long-term investments have a rate of return exceeding the long-term expected rate of inflation. And inflation can have sources other than private money growth. Federal spending over the decade will exceed tax revenues, forcing the government to support its outlays either through increased taxes or greater borrowing. Deficit spending, depending upon how much, in the context of heavy consumer credit demands is likely to result in high money growth and renewed high rates of inflation. If private lenders and investors anticipate high levels of federal borrowing during the remainder of the decade, they are likely to demand higher interest rates on long-term loans in the current lending market. If this happens, interest rates will begin to rise rapidly again, and the recovery of 1983 will quickly come to an end.

Expansion of "nationwide demand for Ninth District goods and services" is related in one way or another to an increase in the number of jobs. In 1980, 97.2 million persons were employed in the United States. From 1979 to 1980, employment grew by a mere 479,000 while unemployment grew by 1.5 million as the number of persons aged 16 and over grew by 2.9 million. The following year, 2.4 million people were added to the potential labor force, but only a little more than a million persons gained jobs. From 1981 to 1982, population growth added 2.2 million more persons to the 16 and over age group, while employment declined by over 870,000 jobs and the number of unemployed rose to 10.7 million.

One forecast indicates that employment will grow to 99.9 million nationally during 1983, and then rise to 103.1 million by 1984. (Chase, 1983a) But unemployment is expected to decline by only 926,000, leaving unemployment at 9.8 percent, a figure supported by other national forecasts (see, for example, Zarnowitz, 1983b; Hymans & Crary, 1983; and Economic Outlook USA, 1983).

Moderate growth in employment during the recovery will stimulate demand for regional goods such as energy and food. But many people, both nationally and locally, will remain without jobs even though the rate of new additions to the potential labor force will decline to 2.2 to 2 million persons per year.

Growth in the number of persons employed often signals growth in the demand for goods and services. However, the social and economic meaning of employment growth or unemployment is not straightforward.

Depending upon where one lives and family composition, unemployment can be viewed as a factor merely having a strong influence on consumer buying power, to a factor radically altering a family's economic and social stability. "The data show, for example, that the median income of families with one unemployed member or more during 1980 was 21 percent below the median for families not affected by unemployment . . . Primarily because of lower earnings, 15 percent of the families affected by unemployment were in poverty in 1980. By contrast, among families where no working members experienced unemployment, only 6 percent had incomes which fell below the poverty level." (Unemployment and its Effect on Family Income, 1982:35) For another segment of the population, ". . . the poverty rate reaches 51 percent for families maintained by women who could only find part-time work, and nearly one-half of the families of unemployed women who maintain families are below the poverty level." (Linking Employment Problems to Economic Status, 1982:1) In addition, unemployment during recession is likely to become localized in communities and regions of the country. When that happens, the spouse's job may not last much longer than the job of the principal wage earner in the family.

The context of unemployment and not simply the number of unemployed provides significant elements for the interpretation of unemployment's consequences and possibly some of its solutions.

Our most precise and current information on the demographics and occupational structure of job loss during the recession is presented in Table 16. From 1981 to 1982, over 870,000 jobs were lost. Nationally, job loss was the greatest in durable goods and the motor vehicles manufacturing occupations, among mine workers, and among machinists. Job declines were most apparent among youth. The numbers of jobs held by youth experienced a 5.2 percent decline while job gains were recorded for 25-44 year olds, primarily in service work and in professional occupations. The number of medical doctors, dentists, and related occupations, for example, rose by 5.0 percent to 506,000 due mainly to the surge in middle age professional employment.

Job decline among youth took place for two reasons: the number of jobs traditionally held by youth declined 2/, and the size of the youth population is declining as its members age and fewer young come to replace them.

2/ The problem of job security for youth is illustrated not only by unemployment statistics, but also by the "job change" data presented in Table 16. These data indicate, for instance, that among motor vehicle equipment manufacturing occupations, jobs held by the youngest declined by 45.2 percent, twice as fast as for individuals aged 25-44, and 5.4 times faster than those aged 45 or more.

The most recent Current Population Survey based estimates for North Dakota contained in Table 5 show that for 1982, total unemployment rose to 9.1 percent (compared to 8.8 percent in 1981) among individuals aged 16-24. At the same time, the civilian population for this age group declined to 113,500 (down from 115,900 a year ago).

Population projections by age group for North Dakota are presented in Figure II of Appendix I. These projections indicate that by 1985 30.3 percent of the population will be ages 25-44 as compared to 25.7 percent in 1980. Over the same period, the number of young ages 15-24 will decline from 20.4 percent to 16.6 percent of the population. One of the growing challenges for the labor market in North Dakota and the nation concerns the crowding of the baby boom generation into midcareer employment and residency decisions.

The problem of employment growth, then, is not simply one of establishing economic policies that ensure growth in the aggregate number of jobs, but also in creating jobs deemed suitable to middle-aged individuals both in terms of income and prestige. As is illustrated in Table 15, for example, young males tend to work in jobs as service workers, nonfarm labor, operatives, and as craftsmen. Only among crafts occupations, it appears, do the skills learned in youth become directly transferable to jobs performed during middle age. Males aged 25-44, on the other hand, tend to work as professionals and as nonfarm managers and administrators. To a substantial degree, young males leave behind such occupations as service workers and unskilled labor. Occupations worked during middle age, for many males at least, tend to be unlike those worked as a youth.

But, with an annual average growth of less than a million jobs for 1982 to 1983, and job growth expected to increase by slightly over 3 million during 1984, the shape of near future employment growth is unlikely to satisfy either the desire for upward mobility or even the simple need of many for a job.

Nationally, the increase in employment has been slow but certain since the beginning of the year. [3] The increased availability of income to more job holders, and increased confidence among more consumers in making discretionary loan based purchases, has led to a rapid growth in the amount of money as more earnings and savings turn over more rapidly in the economy. The money supply grew so fast that the spring issue of Economic Observer concluded that, "The rapid growth of M1--the narrowly defined money supply, composed mainly of currency in circulation and the checkable deposits--has unnerved the financial markets, stalled the downward march of interest rates . . ., and clouded the near-term interest rate forecast." (Chase, 1983c:1)

By the end of May, M1 was expanding at a rate of 14.6 percent, a rate approximately double the rate of 1982, and far above what some analysts believe is the Federal Reserve's ideal growth rate policy. "The Federal Reserve is committed to a monetary policy which supports economic recovery without . . . inflation . . . we have assumed for our forecast such a policy would include allowing the monetary base to grow at an average rate of 6 percent during the rest of 1983 and 5 1/2 percent during 1984." (Hymans & Crary, 1983:30) Many forecasts expect the Federal Reserve to begin limiting the growth of money at least by the third quarter of 1983. The Federal Reserve may choose to increase the rate it charges private banks to whom it makes loans. Interest rates charged on loans to private banks averaged 8.5 percent during this spring and may be raised to the 9 to 9.5 percent level where it was during the late winter when mortgage interest rates were nearly 14 percent. In the view of many, raising interest rates would allow increased productivity and industrial production [4] to catch up to the expanding supply of money--forestalling the high inflation rate.

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[3] By May of 1983, civilian employment had risen to 99.5 million, continuing its growth from January. May of 1983 employment, however, was still 414,000 jobs below the same month a year ago. Job growth during the spring brought with it a substantial increase in wage and salary disbursements. Wage and salary disbursements in May grew at an annual rate of 5.2 percent in comparison to a total annual rate of growth for 1981 to 1982 of 4.5 percent. (data--Economic Indicators, 1983)

With the rate of inflation for 1983 to 1984 expected to increase from the lower range of 4 percent to the upper range of 6 percent, even the lower interest rates we have come to expect during the spring of 1983 are high in real terms. The cost of money is expected to remain high in historic terms but still be low enough to permit an expansion in the economy. The rate of employment growth will be slow--agonizingly slow--for many.

A slow national recovery and high real interest rate (and for North Dakota agricultural exports, the related problem of the high value of the dollar compared to other world currencies) are a constraint on North Dakota's economy. In response to an expanding economy, for example, oil prices should being to rise this fall and, "Thereafter, oil prices should rise slowly, with the rate of price increase during 1984 averaging less than 4 percent." (Hymans & Crary, 1983:31) For one forecaster, a slow national growth scenario is associated with slowly declining unemployment in North Dakota. This spring's Chase Econometrics tabular data indicates that the number of unemployed is expected to decrease by about 3,000 through 1983 and 1984, to a quarterly average of 19,400 by the end of 1984. (Chase, 1983b).

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[4] In May of 1983, manufacturing plants were using 72 percent of their capacity, the highest since the previous May, but far below the 1979 level of 85.7 percent. (data--Economic Indicators, 1983) One recent forecast suggests that capacity utilization will rise to an average 75 percent during the fourth quarter of 1984. (Chase, 1983a)

> . . . (T)he Farmer's Railroad, built and operated by . . . farmers along its line, runs through the most fertile section in North Dakota. Beginning in Devils Lake . . . this line runs northwest through the Sweetwater lakes valley . . . one of the best cultivated districts in the state . . . the road enters the great Big Coulee valley, crosses Rock lake, and then runs on to Hansboro, at the international boundary . . . The service on the Farmer's Road is of the very best, a passenger and mail train running each way daily, making close connections with Great Northern trains for all points east and west . . . The farmers along the line also own their own elevators . . .
>
> North Dakota Magazine--May 1906

III. AGRICULTURE

Most firms and employees in North Dakota are dependent in one way or another on the economic welfare of agriculture. In 1979, North Dakota farmers and ranchers spent an estimated $2.3 billion to put in a crop and finance their livestock operations. In turn, farmers and ranchers received $2.7 billion in income from the sale of agricultural goods and from government subsidy programs. Income, less expenses, amounted to $400 million in net farm income. (Net farm income is often referred to as personal income from farming.) 1/

Farm proprietors, rather than hired farm labor, earned most of the $400 million in net farm income. Farm proprietors earned slightly more than $392 million, or 82.6 percent, of the personal income from farming (see Table 26). Net farm income, when divided equally among all farm/ranch operators, amounted to $8,780 per farm (see Table 31).

There are, then, two distinct types of farm-related consumption expenditures requiring the maintenance of two types of farm ledgers. One ledger maintains records on the $2.3 billion spent in 1979 on machinery,

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1/ An April 1983 Bureau of Economic Analysis release lists the following revised and preliminary estimates for farm/ranch activities (thousands of dollars).

	1979	1980	1981
Cash Receipts and Other Income	2,713,646	2,987,329	3,315,632
Production Expenses	2,316,617	2,460,516	2,796,626
Value of Inventory Change	-3,434	-471,596	84,708
Net Income	393,595	55,217	603,714

land, debt retirement, fuel, chemicals, seed, and other operating expenditures. The second set of books is used to track the $400 million worth of personal consumption expenditures used to maintain the health and well-being of the farm family. From 1979 to 1981, about 11.7 percent of farm/ranch "cash receipts and other income" was available to farm families for such items as savings, food, clothing, household items, entertainment, appliances, etc.

Local merchants, then, can be divided into two sectors: those who serve the needs of farm families, and those who serve the needs of farm businesses. A change in the fortunes of farmer/ranchers can radically alter how much demand for goods and services, and therefore jobs, there is in different sectors of a local community's economy.

The fortunes of North Dakota's farmer/ranchers changed in 1980. During the drought of 1980, farm production expenditures rose to $2.5 billion, but net farm income dropped to $55 million. The suggestion can be made, then, that under circumstances of drought, the economic sector involved in providing farm families with personal goods and services suffers the most.

Net farm income (or personal income derived directly from the farming sector) plays a far more important role in North Dakota's economy than it does in the nation's economy. [2] A percent distribution of personal income in North Dakota and the United States is contained in Table 28. The data indicates, for example, that farming represented 14.5 percent of industry-based personal income in North Dakota in 1981, but nationally farming accounted for only 1.9 percent of all industry-based personal income. [3] (As can be seen by reviewing the tables in Appendix

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[2] The growth of personal income is often interpreted as an essential prerequisite to increased personal consumption. The rate of growth in personal consumption is a key factor stimulating any economy. Until quite recently however, increases in wage, salary, and proprietor's income has not been responsible for increased personal consumption. A comparison of second to fourth quarter 1982 data shows ". . . that two-thirds of the rise in consumption reflected higher transfer payments, such as social security and unemployment compensation. Income gained from wages and salaries, weakened by the recession, made only a modest contribution to increased consumption." (Morgan, 1983:4)

[3] Another comparison, based on calculations from the data in Table 27, indicates that in North Dakota (1981), 59.7 percent of all proprietor's income is found in farming, while nationally only 18.7 percent of proprietor's income is found in farming.

V, dividends, interest and rent, and transfer payments are nonindustry-related sources of personal income.) In North Dakota, agriculture, services, and government are the top three sources of industry-based personal income.

The growth and distribution of personal income are chief indicators of the demand for goods and services in trade and in many manufacturing and service industries. [4] "Consumer outlays, the research shows, are influenced primarily by the trend in after-tax personal income." (Morgan, 1983:2) The drought of 1980 lowered farm personal income to 14 percent of what it was in 1979. By 1981, net farm income had risen from $55 million to $603 million.

Low farm income forces many operators out of business each year. In addition, instability in farm income means that when agricultural markets fall, farmers are often locked into loan repayment programs based on a presumed constant average income.

Often the response of farm families to low and unstable farm income is entry into the off-farm labor market. The 1978 Census of Agriculture indicated that 43.9 percent of all farm operators in North Dakota worked for at least some time at off-farm jobs. The data in Table 9 provides a more elaborate picture of operator and spouse participation in the wage and salary labor market in the Northern Plains Region. These data indicate, for example, that a farm operator's second occupation is most likely to be as a craftsperson, or as a manager or administrator. The one in four spouses who work at off-farm jobs do so primarily as professional or technical workers, or perform jobs as clerical or service workers. Over 70 percent of those who work at jobs off the farm travel less than 30 miles to work. With wide fluctuations in farm income, it can be suggested that plentiful nonfarm job opportunities make a substantial contribution to the economic support of the local farm community.

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[4] How evenly personal income is distributed and not simply its aggregate growth, is an issue especially important to the domestic and foreign consumption of agricultural products. From the standpoint of job-related consumption potential, the data in Table 36 indicates that different kinds of income (wages and salaries, unemployment compensation, dividends, pensions, etc.) typify families at different income levels. Moreover, as one moves up the income scale, not only is a lower percentage of income spent on food, but the market basket of food purchases also changes in character. Most notably, the consumption of meat, fish, poultry, and eggs rises rapidly while the consumption of cereals and bakery products falls short of the pace set by these high protein foods.

From the standpoint of the retail food market, the growth in wage and salary jobs has had a substantial impact on the demand for restaurants. This is so because middle income families, with more than 80 percent of their incomes from wages and salaries, spend over twice as much on food away from home as do low income families who have social security as a primary source of income. The distribution, as well as the absolute amount of income growth, whether in social security income, wages and salaries, or dividends, affects the total demand as well as the structure of the demand for agricultural products.

A key problem for farm families during 1983 and 1984 is that farm prices are expected to grow only slowly, and the nonfarm job market is expected to offer few new job opportunities that could offset the problems of low farm income.

A rapid turnaround in farm income is certainly within the realm of possibilities. However, the farm income outlook is realistically viewed within a more conservative context.

One recent forecast posts Minneapolis durum at $4.72 per bushel in 1984. Other spring wheat is expected to rise from $4.00 in 1982 to $4.38 per bushel over the same period. (Chase, 1983b) 5/ A second analysis forecasts a January 1984 average wheat price of $4.60, a 12.7 percent increase from January 1983. This analysis is based upon a 30 percent reduction in the production of wheat. (Belongia, 1983:24)

Low grain prices make livestock production less costly, and livestock prices should rise somewhat during 1983 and 1984 as more Americans find work.

Anticipated slow growth in grain prices is, in good part, viewed as a function of increasing supply in the midst of falling demand created, in large part, by world recession.

Grain production rolled ahead during the 1981-82 crop year, while the rate of growth in world trade slowed to one of the slowest growth rates in the past two decades. After double-digit growth rates during

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5/ Selected historic data from Chase, 1983b:

	1974	1977	1978	1979	1980	1981
Durum, $/BU.	7.02	3.04	3.58	4.48	5.94	4.97
Other Spring, $/BU.	4.91	2.61	3.02	3.83	4.29	4.30

the latter half of the 1970s, the growth rate in total world grain trade slowed to 6 percent from 1979-80 to 1980-81, and dropped to 0.9 percent in the most recently-completed trade year.

According to analysis conducted by the World Food Institute (WFI), several barriers to world trade have arisen at a time when ". . . record world production of all major grains and near record production of oil seeds . . ." characterizes the supply side of agricultural markets. (WFI, 1982:4)

World grain trade is being restrained by ". . . (1) an economic recession in major industrial nations, (2) a sharp rise in the value of the U.S. dollar in world currency markets . . ., and (3) East European financial problems resulting from a heavy accumulation of debt." (WFI, 1982:18) Trade problems related to the world recession are expected to slowly diminish as the price of petroleum decreases, and as interest rates decline worldwide. However, the financial problems of eastern Europe are long-term, and preclude the post world recession cultivation of that market as a source of rapid export growth. The currency debt to the West of such major trading countries as Poland, Bulgaria, and Hungary rose from $4.9 billion in 1971, to $49.3 billion in 1979. Eastern Europe's "capital repayment problems . . . reflect high interest rates, increased costs of energy imports, a sluggish world economy, and substantial reliance on external financing to support economic growth." (WFI, 1982:19) The sheer size of East European debt, combined with the scope of repayment problems, serves to reduce the willingness of private banks to extend credit to these countries for import food purchases.

Grain trade constraints due to large debt burdens are not limited to eastern Europe. And it is this debt, among other factors, which will act as a constraint on the volume of trade throughout the 1980s. "High interest rates, the long-term upward trend in world energy prices, and large outstanding debts of some developing and centrally planned nations have become important restraints on future exports of U.S. farm products." (WFI, 1982:37) Expanded trade is unlikely to become a reality until the world economy as a whole begins to move from recession to recovery.

An analysis of grain carryover stocks indicates that oversupply represents not nearly the problem posed by a lack of world demand. ". . . (G)lobal stocks as a percentage of annual utilization remain well below the level of 11 or 12 years ago and are sharply below levels of the early 1960s." (WFI, 2) All grain stocks as a percent of world utilization stood at 14.6 percent at the close of the 1982 trade year. 6/ Current grain carryover does not appear by itself to explain low prices.

While supplies remain within historically normal levels worldwide, what appears to be depressing prices in the U.S. is the fact that stocks are being built up here at home rather than on an international basis. For example, the U.S. holds 62.6 percent of coarse grain carryover stocks. 7/ This example points to another facet of the carryover issue: only selected types of commodities are involved.

Indeed, wheat and coarse grains made up over 88 percent of all carryover stocks at the close of 1982, but wheat producers may be far better situated with respect to near future potential world markets than coarse grain producers for two reasons: First, wheat carryover stocks "both in absolute and in percentage of utilization terms are well below previous records." Second, wheat producing regions of the world, because of their geography, are often subject to uncertain weather conditions. "Since major wheat producers such as Russia, Australia, India, and Argentina are located in areas of highly variable weather patterns, U.S. wheat growers also should continue to expect sizable fluctuations in U.S. exports in the years ahead." (WFI, 1982:30) There is a strong possibility, then, that wheat prices could stray substantially from the upper reaches of $4 per bushel forecast for 1984.

6/ Selected data from WFI, 1982:

July-June Trade Years	1960-61	1966-67	1971-72	1978-79	1979-80	1980-81
World Stocks as a Percent of Utilization	23.8	17.4	15.6	15.5	13.6	12.4

7/ By 1983, ". . . the U.S. will hold 85 percent of the world's corn stocks and 44 percent of its wheat stocks . . ." (Belongia, 1983:22)

And finally, with wheat stock carryover concentrated in this country rather than abroad ". . . participation in U.S. production control and grain reserve programs," along with the strength of the dollar and world weather conditions, is expected to be a strong influence on grain prices over the next few years according to the World Food Institute report.[8/]

The federal government's Payment-In-Kind (PIK) program represents just such an attempt to raise prices by reducing commodity supplies through a reduction in the number of planted acres. However, despite higher than anticipated participation levels, the influences of the PIK program on farm income are clearly not certain. As is indicated in Table 27, net farm income nationally was $33.6 billion in 1981. National preliminary estimates of farm income are $22 billion in 1982, with the most recent spring forecast for net farm income to be between $20 and $24 billion in 1983. What the national forecast suggests is that the PIK program is introducing an element of stability to the net farm income picture.

The effects of the PIK program on local farm income are difficult to disentangle from other factors affecting commodity prices. Moreover, the national movement of net farm income, as is shown in Table 31, is not a very good indicator of direction on the state level. Finally, locally based analysis has emphasized only the $2 to $3 billion normally spent in putting in a crop and financing livestock operations.

What price forecasts we have suggest that local total farm income will remain stable, if not improve moderately in real or inflation-adjusted terms. On the other side of the net income equation are the input costs farmers incur in financing grain and livestock operations. It has already been noted that low crop prices reduce feed costs to livestock producers. In addition, lower interest rates also reduce producer costs. Finally, falling oil prices reduce the cost of petroleum and petroleum-based input such as fertilizer, herbicides, and pesticides.

[8/] Other analysts suggest that government programs aimed at raising prices by controlling production through reduced acreage incentives fail to meet their goal because: (1) farmers idle their least productive and marginal land; (2) remaining acres may be farmed more intensively, i.e., using more fertilizer and pesticides; and (3) ". . . grain is an internationally traded good . . . Without cooperative agreements for output reductions by other countries, U.S. attempts to increase grain prices by idling acreage are likely to be unsuccessful." (Belongia, 1983:22)

If prices rise as anticipated and input costs moderate, the personal income of farm families should increase.

How extensively the PIK program will affect the $2 to $3 billion of farm input expenditure is the focus of a recent North Dakota State University report. Simulation analysis conducted by Mittleider et al. 1983, suggests that even with maximum PIK participation by North Dakota wheat farmers, input expenditures would be reduced by $113 million or an amount representing approximately 4 percent of 1981 production expenses (see footnote 1). Maximum participation would mean that slightly more than four million acres, or 37.9 percent of 1982 wheat acreage, would be changed from wheat production to fallow. The effects of reduced purchases of seed, fertilizer, and other inputs would be to reduce nonfarm personal income by $49 million, an amount equivalent to 0.7 percent of total personal income during 1981.

In summary, the PIK program would appear to enhance the probability of increased net farm income while at the same time reducing the sales of the farm supply segment of the retail trade industry. On the other hand, if farm family incomes are enhanced because of the PIK program, personal consumption expenditures used to maintain the health and well-being of farm families could be increased.

> The generation of electricity from . . . an abundant source of fuel will have the same effects as an enormous increase in the amount of other raw materials, since with unlimited energy it will be possible both to produce substitute materials which were previously too costly, and to exploit raw materials which hitherto did not justify the expense of their recovery. Energy is the ultimate currency . . .
>
> "Connections"
> James Burke--1978

IV. FALLING OIL PRICES

A boon to the national and world economy, falling oil prices have resulted in a near halving of local employment in the mining industry. Employment in mining dropped from its peak of 11,840 in the final two months of 1981 to 6,890 in April 1983.

State tax revenues based on energy production have declined precipitously. And declines in mining-related economic activity and indirect state and local tax revenues have also been substantial.

But because mining activity is concentrated in the western third of the state and because average earnings per job in mining are the highest among all industries, the localized negative effect of employment declines are far greater than the mere halving of employment on a statewide basis implies.

In its peak year (1981), 76.6 percent of all job insurance covered employment in mining was found in Regions I and VIII, with mining comprising 46.5 percent of all nonagricultural wage and salary employment in these two regions. Using a crude, straightforward technique based on the data in Tables 10 and 32, it can be estimated that wage and salary reductions related to direct job loss in the mining industry have resulted in an 18 percent loss in local labor income. This estimate, of course, excludes income declines associated with proprietor's income, such as income from rent, and secondary and tertiary wage and salary employment downturns.

But the picture is not entirely gloomy since lower oil prices allow other types of entrepreneurs to find work. "The independents who kept the basin oil industry going in the 1960s have been largely frozen out of the main activity by lease prices. With lower prices since early 1982, these independents should be back in business." (Anderson & Bluemle, 1982:4) Moreover, North Dakota has much to offer in terms of future exploration: "Future possibilities in North Dakota include shallow gas prospects along the eastern margin of the Williston Basin . . . (and) If . . . (our analysis is correct) . . . much more oil remains to be found in the Williston Basin." (Anderson & Bluemle, 1982:5) And the future of that exploration may not be as remote in time as some linear forecasts suggests.

A major forecast assumption of Chase Econometrics is that "Oil prices will fall by 10.4 percent in 1983 and another 0.4 percent in 1984." (Chase, 1983a) But they also point out that ". . . a precipitous drop in world oil prices and the concomitant political instability accompanying such a decline . . . (would result in) . . . domestic crudes . . . selling at a premium above (the OPEC market prices) . . . due to the fact that domestic sources are presumed to be a more stable source of supply." (Chase, 1983b) Under the "political instability scenario," domestic oil prices could rise in 1984, rather than decline by 0.4 percent.

Barring the "political instability scenario," the demand for energy will increase as national and international economies become more vigorous over the course of the decade. And, even though the initial demand for energy may be sharp in the recovery scenario, long-term growth in the demand for energy will be more gradual.

The nature of future demand can be linked to recent events in the history of energy prices. Several individuals have researched the idea that "The increase in the real price of oil during 1973-74 is widely believed to have been a major cause of inflation and recession, both in the United States and abroad." (Darby, 1982:738) And several have suggested that ". . . the price of oil (during the 1970s) . . . sent inflation into double digits." (Economic Impact of Cheaper Oil, 1983: 95; also see Quarterly Review, 1980-81; Economist 1983:11; and Chase, 1982a:A-16) In general, the perception of the problem is that the high inflation of the recent past was pushed higher by rapidly escalating oil prices. In addition, lender expectations of continued high growth in oil price induced inflation, among other factors, lead to ahistorically high long-term interest rates. High interest rates, in turn, induced our most recent international recession. Falling oil prices should contribute substantially to our national recovery.

Writing in April 1983, one forecastor observed that ". . . the recovery remains fragile and will not continue unless sales begin to accelerate . . ." (Chase, 1983a) One of the main factors serving to "accelerate" consumption may be falling oil prices. With oil prices at . . . $25 a bbl., consumers and businesses will, in effect, be getting a 'tax rebate' equal to some $130 million a day or about $45 billion a year--$10 billion more than the much-heralded cut in personal taxes scheduled for July." (Collapse of World Oil Prices, 1983:95) Oil prices and, presumably, other energy prices must fall and establish themselves at a new level of equilibrium with the rest of the economy.

As the new price equilibrium is established, the demand for energy will begin to grow. But the growth and the demand for energy will not take place as rapidly as during the recent oil boom, nor will it involve quite so many job opportunities. Things are much different now than they were following the 1973-74 oil price increases because new conservation techniques and process technologies have come to insert themselves between the cost of raw materials and final production prices. "Fundamental changes have occurred in the world oil market as a result of the sixfold increase in the real price of oil since 1973 . . . Oil consumption in the free world is two-fifths . . . less than it would have been at pre-1973 oil prices and the growth rates. In the OECD countries* oil consumption was 12 percent less than it was in 1973, even though economic output had risen 22 percent." (Fried, 1982:6)

Economic output has risen, in part, because new and more efficient technologies have become integral parts of the way we organize our lives and the ways we produce goods and services. At 40.6 miles to the gallon, a current day automobile owner could pay as much as $1.30 per gallon for gasoline and achieve the same efficiency an older model car getting 10 miles to the gallon would have at 32 cents per gallon. And it is precisely this same analogy, of technology-related rapid increases in productivity versus rapidly rising input costs, that is presently being generalized throughout our economic system.

If energy prices begin to rise faster than productivity during the recovery, we can again expect to see inflation rates creeping back upwards. If, on the other hand, productivity rises faster than energy prices, we can expect to see real new growth in national wealth.

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*The Organization for Economic Cooperation and Development (OECD) comprises Western Europe, United States, Canada, Japan, Australia, and New Zeeland.

Greater productivity means that more can be produced with less, and rapidly rising energy prices have inspired a substantial interest in the past ten years in developing and diffusing technologies that save energy. The economy can expand more rapidly ten years after the first oil price shock, with less energy. Lower energy needs imply that future growth in energy-related employment will be slower but more stable.

In addition, the mining industry itself has attempted to reduce costs with the introduction of labor-saving technology, and improve productivity with the introduction of new technologies. ". . . (T)he number of new pool discoveries per wildcat well drilled has risen dramatically in the last four years. This increase in success is attributed first to use of CDP (Common Depth Point) seismic; second, to a better understanding of a reservoir geology; and third, to completely revised testing and completion techniques." (Anderson & Bluemle, 1982:5) And the trend towards the substitution of technology for labor is continuing. Olson (1983:4), for example, notes that "Oil companies are . . . investing in robotics and electronic beam welding--developments that will improve . . . manufacturing efficiency." Greater levels of productivity can be achieved with less labor. The results are that a new surge in demand may not have the same meaning for employment growth in the near future that it did in the growth period of 1979-81.

In North Dakota, then, we expect to see a gradual rebuilding of energy development and employment growth as a new equilibrium oil price becomes established during 1984. We expect employment in mining to be in the vicinity of 7,200-7,300 during 1983 and 1984, and to rise to 14,700 by the end of the decade.

> "In each year of the 1980s, more than 4 million people will reach age 25. The baby-boom cohort has produced distortions in the need for schools in the 1950s, for college educations in the 1960s, and for rental housing in the 1970s. During the 1980s, they will stimulate demand for single-family detached housing . . . In the next decade, the baby boomers will attain their peak earnings and will be in a position to act on their residential preferences."

"The Demand for Land"
Jack Kloppenburg
American Demographics
January 1983

V. CONSTRUCTION

During 1981, average earnings per job in the construction industry were $1,568 per month, the third highest average earnings in the state, and 1.7 times larger than one of our most rapidly growing industries--services. The construction industry has a greater relative economic importance for North Dakota than it does for the nation. Responsible for 7.3 percent of all industry-based personal income in the state (for 1981--see Tables 26-30 describing labor and proprietor's personal income), in comparison to 5.3 percent for the nation, the construction industry has an economic impact out of proportion to the number of people it employs.

Less than half of construction's economic influence stems from the covered wages it pays, or the personal income it generates for owners of construction companies. Like agriculture, the construction industry spends large amounts of money on construction materials and construction-related services. For example, in 1981, the value of residential and nonresidential construction contracts in North Dakota was $513 million (data--Statistical Abstract, 1982-83:745). This amount is equal to 18.3 percent of the $2.8 billion spent that year by farmers and ranchers in financing agricultural operations. In 1979, at $601 million, the value of new construction was equal to more than a quarter (25.9 percent) of the $2.3 billion in farm production expenses. It is clear from these large dollar amounts that the volume of construction activity affects not only those directly employed in construction, but also a broad construction supply network of wholesalers and retailers who are, in turn, supported by a significant portion of the transportation industry.

An industry as large as construction can certainly prove to be a significant offset when agriculture experiences a downturn. And in a direct sense, it does. The construction industry offers off-farm work opportunities for many farmers/ranchers. As the data in Table 9 illustrates, crafts and similar types of work were the single most frequently reported off-farm work occupations for farm operators. But when interest rates are high, the construction industry can offer few off-farm work opportunities for farmers.

Employment in the construction industry in North Dakota peaked in 1979 at 18,670 jobs (see Table 12). During the next two years, as new home mortgage interest rate averages rose to 12.7 and then 14.7 percent, employment declined to 14,820.

Employment increased in 1982 when interest rates averaged 15.1 percent, in part, because of impact associated with oil and gas exploration, but more importantly because of power plant and interregional pipeline construction projects.

Recent historical events have served to hamper employment in interest-sensitive general building and special trades construction while, at the same time, boosting heavy construction in energy-related fields. In contrast to interest-sensitive construction, energy-related construction tends to be geographically localized, comparatively intense, and generally of short-term duration.

A comparison of employment for the summer of 1979 with the summer of 1982 traces a decline and shift in employment from general building and special trades to heavy construction. From the third quarter of 1979 to the third quarter of 1982, general building construction dropped in employment by 1,900, and special trades declined by 2,124. Total construction employment declined from its peak in the third quarter of 1979 by 16.4 percent. On the other hand, quarterly average employment in street, highway, and heavy construction increased in number by 713, rising from 29.2 percent to 38.6 percent of all construction employment. Heavy construction, then, sustained employment in the total industry while housing and commercial-based activity declined substantially in the face of high interest rates.

Although highway construction and maintenance funds from the new federal nickel-a-gallon tax on gasoline will help boost heavy construction employment during 1984 [1], heavy construction may see its peak employment year in 1983. The winddown at the Great Plains Coal Gasification project will significantly affect total construction employment.

Tabular data from the most recently released Inter-Industry Technical Assistance Team report indicates that the work force at energy conversion facilities in Mercer County will average 4,708 during 1983. Most of these jobs are classified as heavy construction. In 1982, construction and construction-related employment at Mercer County energy sites averaged 3,289. By 1984, projections show employment will have declined to 1,510.

Many of the individuals employed at energy conversion sites are nonresidents (in 1982, 41.4 percent of the work force were nonresidents) and can be expected to move to job sites in other states. Whether or not resident workers caught in the construction winddown will find new job opportunities locally is not clear (data--Mercer County Impact, 1983).

Interest-sensitive general and special trades construction is picking up during 1983. How many new employment opportunities there will be during 1983 isn't a certainty, nor is it clear that interest-sensitive construction employment will be able to make up for the jobs lost in heavy construction during 1984. Our projections of total employment in construction during 1983 and 1984 (see Table 12) are for employment to rise to annual averages of 16,600 and 16,800 respectively. These projections are based, in part, on the assumption that interest rates will remain low enough to permit continued increases in housing and commercial construction.

In 1978, almost 6,000 private housing units were authorized for construction in North Dakota. By 1979, that number had slipped to slightly over 4,800, and by 1981, with new home mortgage rates averaging 14.7 percent, privately owned housing unit authorizations dropped to 2,200 (data--Economic Indicators, 1983, and Statistical Abstract, 1982-83).

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[1] In Fiscal Year 1984, starting October 1, North Dakota is expected to receive $78.9 million in gas tax monies, a 48.7 percent increase over FY '83 disbursements (data--*U. S. News & World Report*, January 10, 1983).

Nationally, there were 992.5 million private housing units authorized during 1982, an increase of 0.7 percent over 1981. Forecasts of national housing starts range between 1.4 and 1.6 million during 1983, and 1.60 to 1.68 million starts during 1984 (see Chase, 1983a and Economic Outlook, 1983). If North Dakota comes close to maintaining its share of the nationally projected growth in housing starts, between 3,800 and 3,900 private housing units could be authorized in 1983 with 4,400 starts during 1984. [2]

With interest rate declines coming during the winter of 1982 and the spring of 1983, housing starts are among the first anticipated signs of recovery. Other types of construction are expected to follow suit as the recovery matures. ". . . (I)n the early phases of recovery, from past recessions, residential construction has turned up sooner and more sharply than other types of construction . . . An expansion in private nonresidential construction will be delayed until 1984 or 1985 when capacity utilization, employment, and profit rates are all considerably higher than they were in 1982." (Industrial Outlook, 1983:1-1,3) Many communities around the state anticipated or were experiencing increased housing construction during the mild winter of 1982-83.

But construction employment growth may not keep pace with the increased rate at which construction contracts are let. While many people remained employed in construction during the recent recession, most worked fewer hours. Not only did the construction industry experience the greatest employment drop between 1979 and 1980 (manufacturing employment declined by 6 percent, construction declined by 10.2 percent), it also experienced a decline of 4.9 percent in real or inflation-adjusted average earnings per job (see Table 34). Real average earnings declines were greater only in retail trade (-7.1 percent) as the work week declined during the drought, and real earnings declines in construction were followed closely by government (-4.3 percent). Employees in the construction industry will gain a longer average work week and recoup some of the declines in earnings before more workers are added. Thus, even though the value of construction contracts increase substantially, lagging industry employment is likely to understate the broader economic effect that construction is having on the state's economy as recovery reaches towards maturity.

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[2] More conservative housing start numbers for North Dakota of 2,470 in 1983, and 3,680 in 1984, are presented in Chase, 1983b.

There may, however, be some limiting factors imposed on construction during the 80s that were not typical of the 70s.

The demographic projections for North Dakota found in Figure 2 can be used to bolster forecasts of strong home buying demand during the 1980s. But others suggest that it may be misleading to conclude that the pattern of extensive home building developed during the 70s can reoccur during the 80s. "Forecasting America's housing cannot simply be based on extrapolations from demographics and past home buying patterns. The calculations of the 1970s were based not only on a household-forming baby-boom generation, but also on the last wave of long-term, fixed-interest mortgages, and on housing inflation that provided incentives to spend a high proportion of income on a home." (Sternlieb and Hughes, 1982:33) The rate of growth in household formation is expected to remain strong in the historical terms during the 1980s. On the other hand, housing as an investment is unlikely to be as profitable as it was during the previous decade. And what mortgage money might have been available will instead be serving the deficit financing needs of government and the reindustrialization needs of businesses as the national economy moves into the information age.

The final constraint on future housing demands stems from slow job growth and a slow rate of increase in personal income. The desire for housing may be there, but job-related ". . . real consumer income," in the view of Sternlieb and Hughes (1982: 33), "shows every sign of remaining stagnant." If jobs and job-related income remain constant relative to inflation, the results may very well be that for the remainder of the decade homes will be smaller, and a declining proportion of the population will be able to afford them. Reconciling population growth, a desire for housing, and the high cost of housing is a problem that seems destined to become more difficult as the decade progresses.

> "The recessionary phase of any business cycle is difficult and traumatic for workers, particularly in a state like Michigan with its durable goods-oriented economy. The clear danger is that we may wrongly attribute the short-run cyclical problem to other factors such as automation. Walter Buckingham issued a grim forecast at the time of the 1961 recession: 'There are 160,000 unemployed in Detroit who will probably never go back to making automobiles . . . partly because automation has taken their jobs.'
>
> . . . (T)he association of technological change and economic growth is not just a coincidence; the two are intertwined and inseparable. That is not to imply that adoption of new technologies necessarily insures economic growth, or that displaced workers will always find new jobs. However, it does mean that we all have a vital stake in productivity gains (i.e., in displacing jobs) because that is what allows the possibility of economic growth."
>
> "Robotics: Human Resource Implications for Michigan"
> H. Alan Hunt and Timothy L. Hunt, 1982

VI. MANUFACTURING

In comparison to the nation, manufacturing in North Dakota plays a lesser role in the total economic picture. Even so, the 14,920 jobs manufacturing provided in 1982 were responsible for 6 percent of all wage and salary employment. The importance of manufacturing for the state is further enhanced by the fact that even during a general downturn in the economy, a segment of the industry--nondurable goods manufactured--has been expanding, and can be expected to continue to expand for much of the decade. Moreover, for many people, economic development is synonymous with attracting new manufacturing plants to the state, or encouraging the expansion of native industry.

In 1981, personal income in North Dakota from manufacturing accounted for 5.1 percent of all industry-based personal income. Nationally, on the other hand, manufacturing accounted for more than a fifth (22.2 percent) of all industry-based personal income. In addition, for the two years leading up to 1981, personal income growth rates were greater in the country as a whole than they were in North Dakota. Personal income from manufacturing in North Dakota grew by 2 percent during the drought years of 1979-1980, and then by 8 percent from 1980 to 1981. Nationally, growth rates for these two periods were 6 percent and 8.7 percent (see Tables 29 and 30).

Most manufacturing employment in North Dakota is related to agriculture. The bulk of durable goods manufactured caters to the farm input side of the agricultural equation through the production of farm equipment. On the other hand, employment in nondurable goods manufacture is involved in the processing of agricultural goods. Sugar, processed meat, pasta, vegetable oils, and malted barley are all examples of raw agricultural products that go through at least one phase of manufacturing in North Dakota. Much rarer in North Dakota are nondurable manufacturers found in chemical, textile, lumbering, and paper industries.

Population growth, domestic and international consumer preference, and the ability of consumers to buy processed agricultural products are all factors accounting for employment growth in nondurable manufacturing. The demand for North Dakota's nondurable output is constrained by many of the factors outlined in our discussion of agriculture in Chapter III. These constraints stem from high interest rates and the effects of world recession on world demand for food. But interest rates and low farm prices have a far more direct, apparent, and negative effect on durable goods sales and employment.

In 1979, when the prime rate averaged 12.7 percent and mortgage rates averaged 10.8 percent, over half of all farmer/ranchers in North Dakota purchased a tractor or some other type of machinery. (Data--Census of Agriculture, 1982:112) Farmers and ranchers spent $343 million on farm equipment (excluding trucks and autos) in that year, with 66.1 percent of those expenditures on new equipment. 1/

As interest rates rose, drought intervened, wheat prices failed to keep pace with input costs, and the demand for manufactured durable goods declined. During the fourth quarter of 1979, employment in durable goods manufacture averaged 8,887. By the fourth quarter of 1982, employment had declined by a third to 5,920 (-2,967). How quickly durable goods employment picks up will depend on how quickly inventories of machinery are drawn down. Inventory drawdowns depend, in turn, on commodity prices and interest rates.

1/ The value of new farm equipment purchases averaged $21,860 or about two and one-half times the average net farm income per farm proprietor in 1979 (see Table 31).

Writing in the winter of 1983, before the introduction of the Payment-In-Kind Program, Commerce Department analysts indicated that there was a strong, pent-up demand for farm machinery.

> "With many farmers having deferred purchases of new farm machinery in 1981 and in 1982, pent-up demand has grown . . . growth in (farm machinery) product shipments in constant 1972 dollars is forecast at 2.4 percent in 1983.
>
> On the basis of the projected slight improvement in (farm machinery) shipments, employment of production workers in the industry should increase by an estimated 2 percent." (Industrial Outlook, 1983:23-2)

Even under a best case scenario, employment growth in farm machinery could only be expected to be slight. Data from the first quarter of 1983 indicates that there has been a very modest decline in employment in the total durable goods industry in North Dakota. Employers in the farm machinery sector, however, have been giving production workers more hours of work per week rather than hiring more new employees.

The value of all farm machinery shipments from United States firms is forecast to grow at an annual rate of 4 percent in 1972 dollars for the period 1982-1987, according to the Commerce Department. This forecast is based on rapid world population growth, and is contingent upon the ability of developing nations to finance food imports from the U.S., and/or to finance the mechanization of their own agricultural industries. Developing nations depend upon smaller size implements in comparison to the farm machinery purchased by U.S. farmers. For North Dakota, durable goods employment growth depends in large part, then, on the domestic market and on machinery exports to already mechanized nations such as Canada. With wheat and other prairie commodity prices projected to grow only slowly in response to increased export markets, we expect the durable goods manufacturing average growth rate in North Dakota to be somewhat less rapid through 1987 than the national forecast.

In contrast to the dramatic decline in employment in the durable goods sector, nondurable goods employment increased by 9.3 percent from 1979:IV to 1982:IV. In the annual cycle of nondurable goods employment, the fourth quarter is the period of peak employment activity as food processors begin to receive the new crop. By 1982:IV, nondurable goods employment averaged 8,890 jobs, 757 more than in 1979. Even though modest, this growth rate represents a positive departure from the experiences of other industries exporting goods from the state.

An increase in job holding nationally will increase the demand for food. Therefore, we expect to see nondurable goods manufacturing responsible for the majority of the job growth in manufacturing during the next two years. Since some export processed foods such as sunflower oil and meal compete in a world market, the uncertainties of weather, large carryover stocks, and world recession mean that the market can change rapidly and unpredictably for narrow segments of nondurables manufactured. But for the most part, food and confectionary products (with the exception of fluid milk and butter) are expected to do quite well in 1983.

More jobs, and therefore increasing personal income in the U.S., and changing consumer demand are two factors strongly affecting the demand for processed agricultural goods from North Dakota plants. Such industries as cheese, poultry and egg processing, and confectionary products are forecast by the Commerce Department to be among the top growth industries during 1983. [2]

The Commerce Department's report speculates that consumer perceptions as to which foods are healthful has caused the long-term decline in the consumption of most dairy products, while at the same time helping to increase the consumption of poultry. And other influences are seen to be

---

[2] Growth rates are forecast in terms of 1972 constant dollars. (Data--Industrial Outlook, 1983, Table 3)

Selected Industries Whose 1983 Shipments Are Forecast to Exceed
Their 1972-80 Peak, Ranked by their 1982-83 Growth Rates

Rank	SIC Code	Industry	1982-83 Growth Rate %	Year of Peak Shipments 1972-1980
14	2037	Frozen fruits and vegetables	6.0	78
25	2082	Malt beverages	4.2	80
29	2017	Poultry and egg processing	3.9	80
30	2013	Sausage and other prepared meats	3.8	77
35	2086	Bottled and canned soft drinks	3.4	79
36	2016	Poultry dressing plants	3.2	80
42	2022	Cheese, natural and processed	2.7	80
45	2065	Confectionary products	2.5	80
55	2043	Cereal and breakfast foods	0.9	79

at work in their forecast of healthy growth for food processing through the middle of the decade: "The growth of the fast food industry, especially cheeseburgers and pizza, and sales of specialty cheeses . . . are expected to help boost cheese shipments 2.9 percent above their 1972-80 peak in 1983." Another factor affecting consumption, processing, and packaging is the rapid growth in the number of households, the decline in the number of persons per household, and the maturing of the baby boom generation. "The maturation of the 'baby boom cohort' has favored the sales of malt (beer) beverages." (Industrial Outlook, 1983:XXX) Nondurable goods manufacture, then, should see a smoother, comparatively stronger long-term growth in sales than is anticipated for durable goods manufacture.

Of course, as a growth industry in North Dakota, however modest, food processors are searching for inexpensive sources of capital to finance the introduction of new technologies. Among meat processing industries, the Commerce Department contends, "Inefficient plants will continue to be closed, and new, more efficient plants will be located near cattle country where there is an ample labor supply." (Industrial Outlook, 1983:37-7)

Greater demand in meat processing may lead to the closure of dated facilities and the displacement of local labor with the opening of new plants elsewhere. Introducing new technology means that even high forecast growth rates will be accomplished with diminishing rates of increase in labor. Even so, nondurable goods processing should remain as one of the brighter spots in North Dakota's economy for some time to come.

FIGURE I

CONSUMER PRICE INDEX

ALL URBAN CONSUMERS/1980-82 & 1983 PROJ.

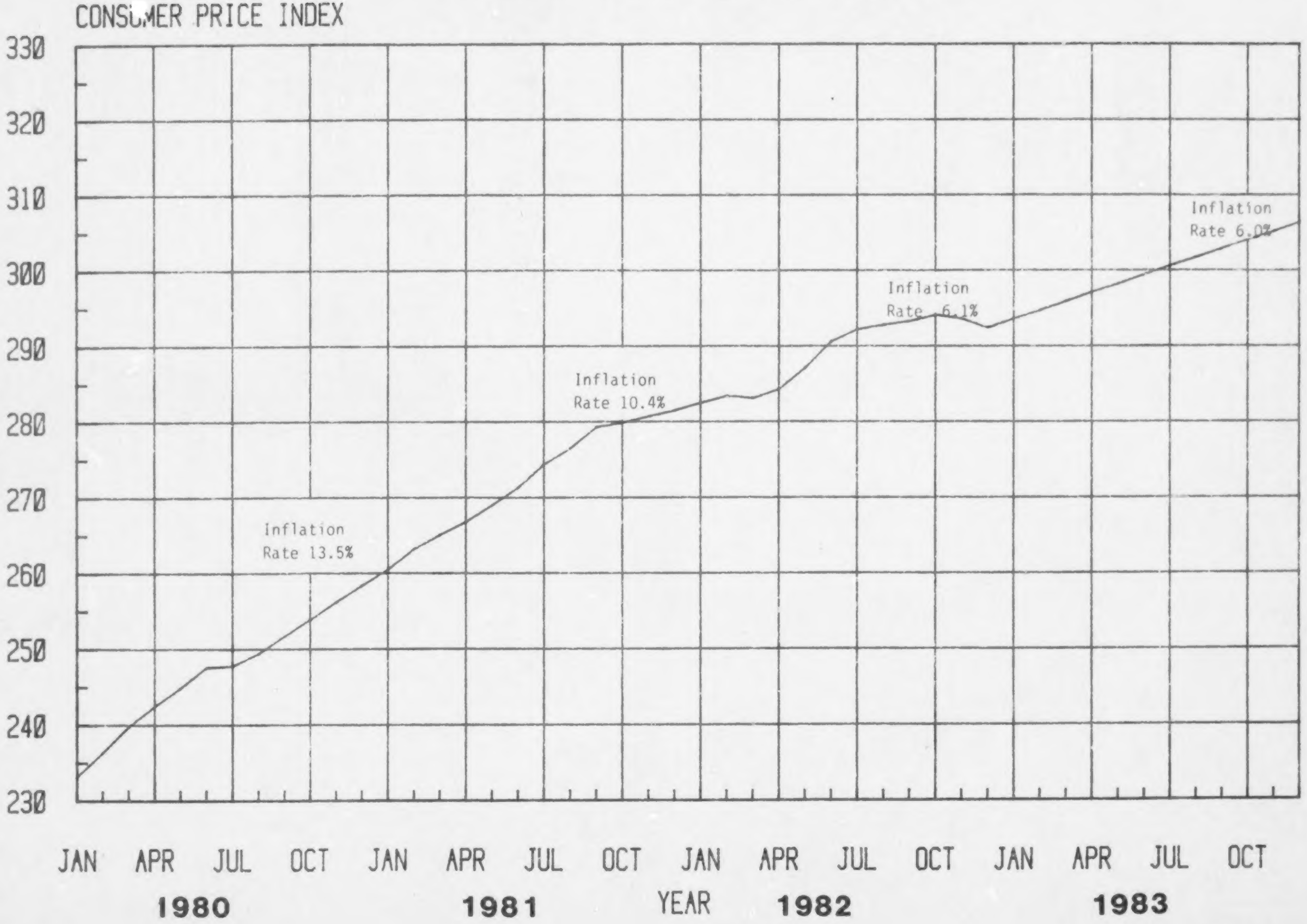


FIGURE II

RURAL AND URBAN POPULATION

PERCENT DISTRIBUTION IN N.D. 1980

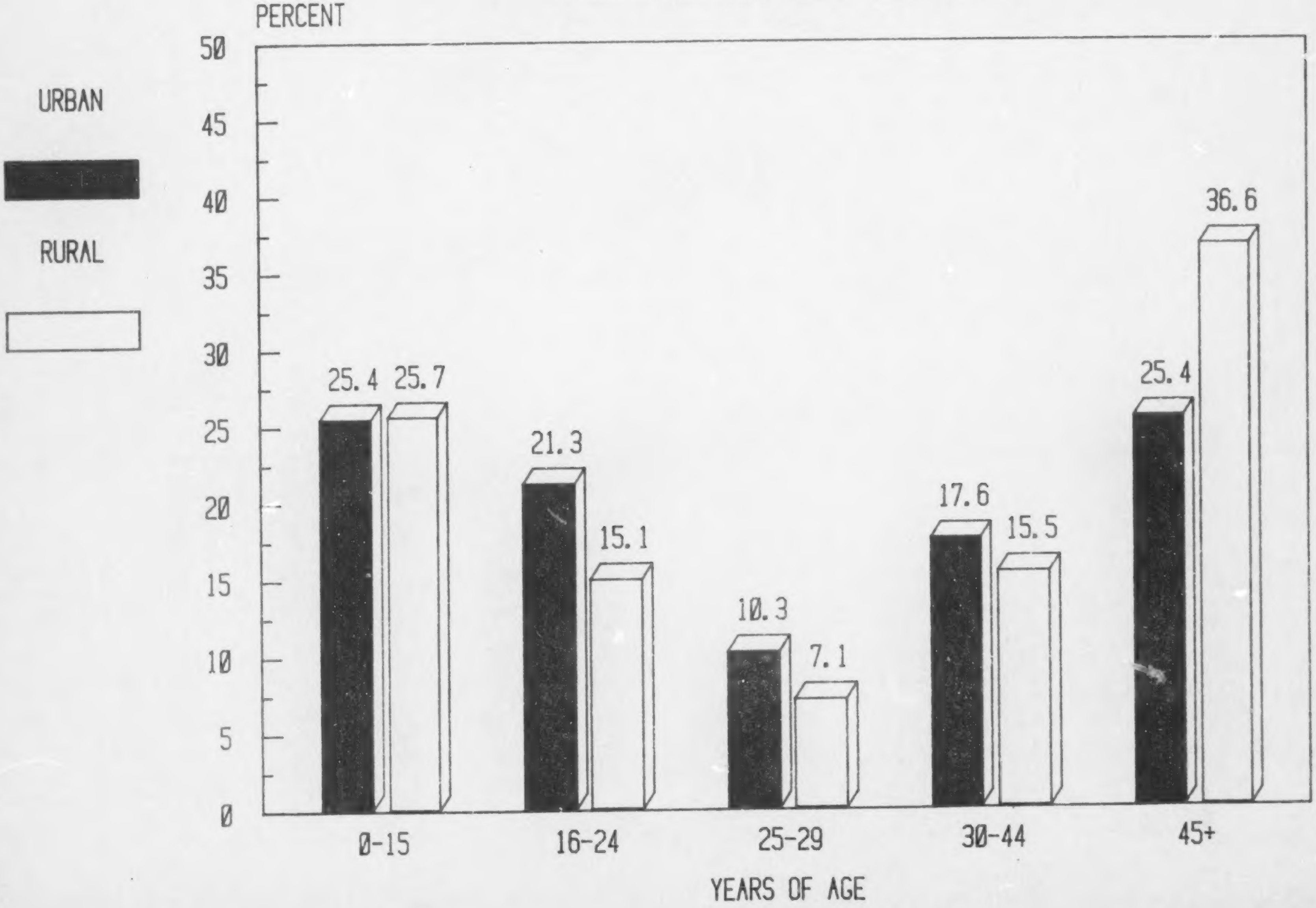


FIGURE III.

POPULATION PROJECTIONS BY AGE

PERCENT DISTRIBUTION FOR NORTH DAKOTA

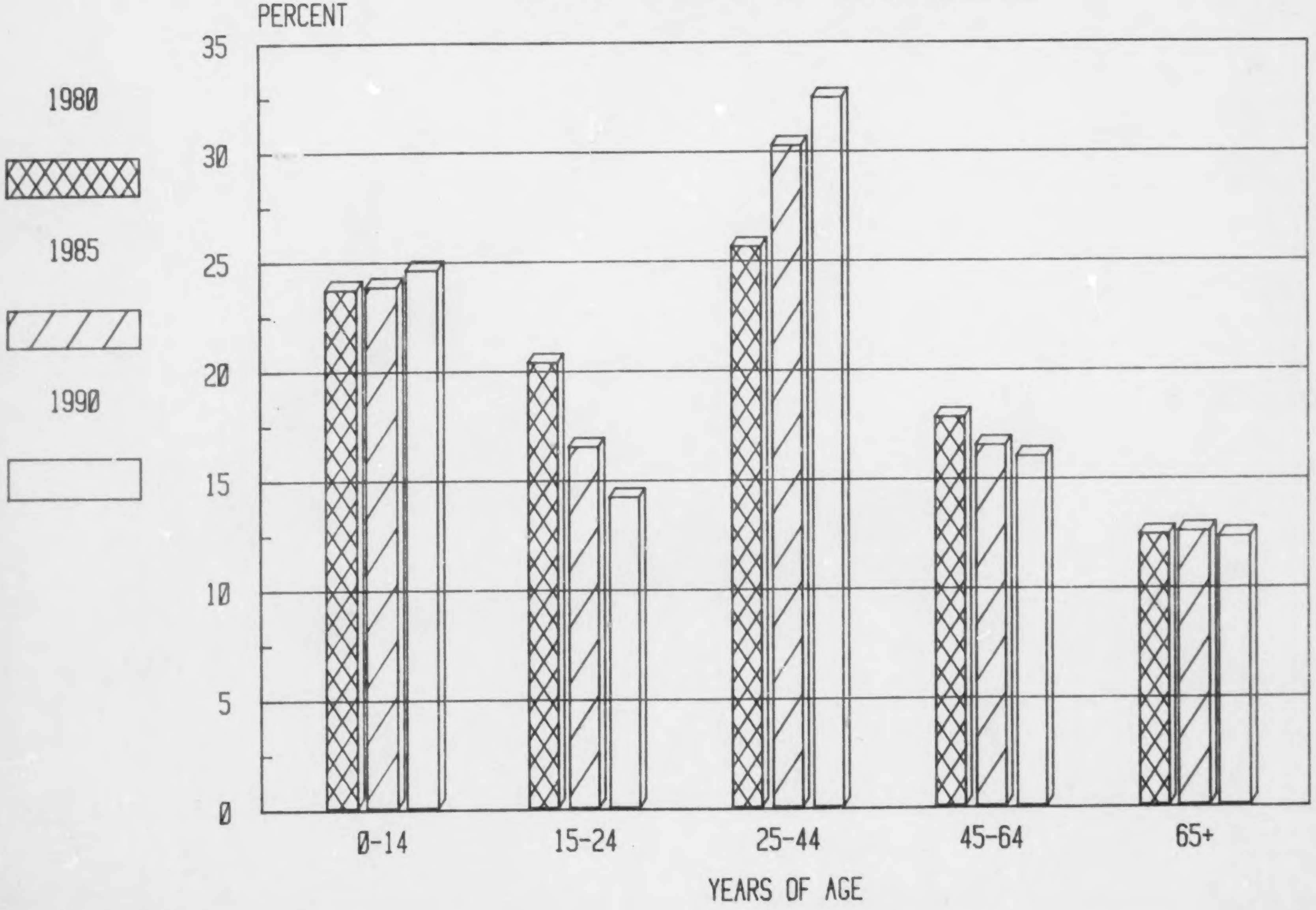
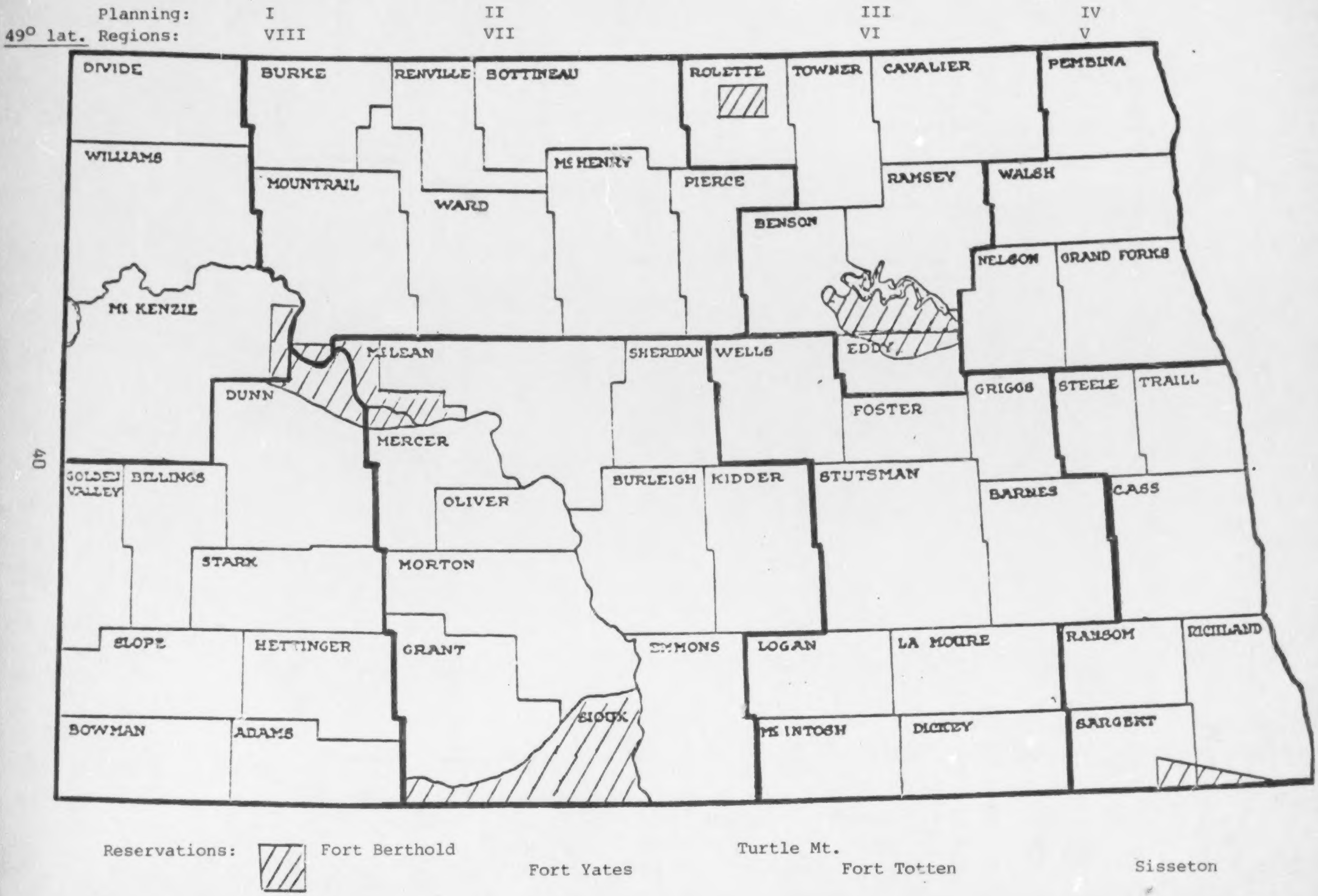


FIGURE IV: Map of North Dakota Counties, Regions, and Reservations


104° lon.
Planning: I II III IV
49° lat. Regions: VIII VII VI V
DIVIDE
BURKE
RENVILLE
BOTTINEAU
ROLETTE
TOWNER
CAVALIER
PEMBINA
WILLIAMS
MOUNTRAIL
WARD
McHENRY
PIERCE
BENSON
RAMSEY
WALSH
NELSON
GRAND FORKS
McKENZIE
McLEAN
SHERIDAN
WELLS
EDDY
GRIGGS
STEELE
TRAILL
DUNN
FOSTER
MERCER
GOLDEN VALLEY
BILLINGS
OLIVER
BURLEIGH
KIDDER
STUTSMAN
BARNES
CASS
STARK
MORTON
SLOPE
HETTINGER
GRANT
EMMONS
LOGAN
LA MOURE
RANSOM
RICHLAND
SIOUX
BOWMAN
ADAMS
McINTOSH
DICKEY
SARGENT
Reservations: Fort Berthold
Fort Yates
Turtle Mt.
Fort Totten
Sisseton

APPENDIX I

POPULATION

Table 1
Population By Age, Sex, and County, 1980
Both Sexes

	0-4	5-15	16-19	20-24	25-29	30-44	45-64	65>	Total Number	Total Percent
REGION I										
Williams	2,007	3,759	1,817	2.451	2,188	3,748	3,846	2,421	22,237	
Divide	243	524	222	186	199	529	886	705	3,494	
McKenzie	667	1,436	530	637	612	1,226	1,280	744	7,132	
TOTAL	2,917	5,719	2,569	3,274	2,999	5,503	6,012	3,870	32,862	
ROW PERCENT	8.9	17.4	7.8	10.0	9.1	16.7	18.3	11.8		100.0
REGION II										
Ward	5,579	10,332	4,637	7,718	5,969	10,395	8,459	5,267	58,392	
Bottineau	710	1,548	737	687	584	1,532	1,820	1,621	9,239	
Burke	247	659	229	207	208	584	951	737	3,822	
McHenry	575	1,387	569	465	515	1,200	1,699	1,448	7,858	
Mountrail	660	1,421	524	510	563	1,201	1,618	1,182	7,679	
Pierce	442	1,190	496	426	380	931	1,187	1,114	6,166	
Renville	250	698	239	208	241	600	736	628	3,608	
TOTAL	8,463	17,235	7,431	10,221	8,460	16,451	16,506	11,997	96,764	
ROW PERCENT	8.7	17.8	7.7	10.6	8.7	17.0	17.1	12.4		100.0
REGION III										
Ramsey	994	2,215	1,127	1,044	987	2,065	2,530	2,086	13,048	
Benson	784	1,702	568	554	512	1,147	1.481	1,176	7,944	
Cavelier	560	1,350	582	473	515	1,201	1,653	1,302	7,636	
Towner	285	660	279	278	248	585	915	802	4,052	
Eddy	280	544	239	230	241	494	797	729	3,554	
Rolette	1,385	2,862	1,130	965	874	1,861	1,959	1,141	12,177	
TOTAL	4,288	9,333	3,945	3,544	3,377	7,353	9,335	7,236	48,411	
ROW PERCENT	8.9	19.3	8.1	7.3	7.0	15.2	19.3	14.9		100.0
REGION IV										
Grand Forks	6,006	10,339	6,248	11,309	7,301	11,150	8,493	5,254	66,100	
Nelson	310	799	319	264	305	778	1,254	1,204	5,233	
Walsh	1,123	2,559	1,067	1,069	1,188	2,565	3,286	2,514	15,371	
Pembina	847	1,781	661	694	806	1,672	2,218	1,720	10.399	
TOTAL	8,286	15,478	8,295	13,336	9,600	16,165	15,251	10,692	97,103	
ROW PERCENT	8.5	15.9	8.5	13.7	9.9	16.7	15.7	11.0		99.9
REGION V										
Cass	6,924	13,339	7,116	12,434	9,964	16,074	13,958	8,438	88,247	
Traill	709	1,452	794	888	651	1,387	1,898	1,845	9,624	
Steele	245	501	229	183	203	509	731	505	3,106	
Ransom	507	1,130	442	394	479	1,029	1,439	1,278	6,698	
Richland	1.487	2,685	2,421	2,369	1,533	2,566	3,373	2,773	19,207	
Sargent	443	1,016	367	402	424	933	1,111	816	5,512	
TOTAL	10,315	20,123	11,369	16,670	13,254	22,498	22,510	15,655	132,394	
ROW PERCENT	7.8	15.2	8.6	12.6	.100.0	17.0	17.0	11.8		100.0
REGION VI										
Stutsman	1,918	3,929	1,746	2,367	2,138	4,084	4,734	3,238	24,154	
Wells	472	1,202	486	411	421	1,039	1,535	1,413	6,979	
McIntosh	244	691	321	247	249	652	1,289	1,097	4,800	
Logan	223	616	287	203	168	503	908	585	3,493	
Foster	348	877	323	343	310	681	968	761	4,611	
Dickey	580	1,228	502	596	513	1,136	1,418	1,234	7,207	
LaMoure	495	1,136	434	419	422	941	1,456	1,170	6,473	
Barnes	1,023	2,119	1,232	1,343	1,048	2,072	2,720	2,403	13,960	
Griggs	260	576	205	222	261	554	891	745	3,714	
TOTAL	5,563	12,374	5,546	6,151	5,530	11,662	15,919	12,646	75,391	
ROW PERCENT	7.4	16.4	7.3	8.2	7.3	15.5	21.1	16.8		100.0
REGION VII										
Burleigh	4,716	9,657	4,433	6,155	5,713	10,663	8.875	4,599	54,811	
McLean	1,125	2,233	776	895	1,026	2,056	2,489	1,785	12,383	
Sheridan	190	479	188	162	156	451	736	457	2,819	
Kidder	320	712	263	241	260	593	892	552	3,833	
Emmons	387	1,224	503	301	293	870	1,387	912	5,877	
Morton	2,361	4,833	1,962	2,278	2,280	4,341	4,406	2,716	25,177	
Mercer	891	1,700	596	903	906	1,760	1,687	961	9,404	
Oliver	247	478	199	194	211	469	488	209	2,495	
Grant	326	828	302	239	294	662	960	663	4,274	
Sioux	461	950	307	310	276	585	535	196	3,620	
TOTAL	11,024	23,094	9.529	11.678	11,415	22,450	22,455	13,048	124,693	
ROW PERCENT	8.8	18.5	7.6	9.4	9.2	18.0	18.0	10.5		100.0
REGION VIII										
Stark	2,169	4,290	2,143	2,957	2,257	3,800	3,758	2,323	23,697	
Slope	95	219	91	87	86	169	279	131	1,157	
Hettinger	291	786	323	258	291	632	1,016	678	4,275	
Golden Valley	188	459	170	150	167	377	494	386	2,391	
Dunn	406	879	356	389	353	750	962	532	4,627	
Bowman	374	802	313	333	327	713	796	571	4,229	
Billings	93	225	104	85	88	195	251	97	1,138	
Adams	280	605	231	260	266	615	744	583	3,584	
TOTAL	3,896	8,265	3,731	4,519	3,835	7,251	8,300	5,301	45,098	
ROW PERCENT	8.6	18.3	8.3	10.0	8.5	16.1	18.4	11.8		100.0
STATE TOTAL	54,752	111,621	52,415	69,393	58,470	109,333	116,288	80,445	652,717	
ROW PERCENT	8.4	17.1	8.0	10.6	9.0	16.8	17.8	12.3		100.0

SOURCE: "1980 Census of Population; General Population Characteristics" PC80-1-B36 (Vol. 1, Chapt. B), August 1982.

Table 1 (continued)
Male

	U-4	5-15	16-19	20-24	25-29	30-44	45-64	65≥	Total Number	Total Percent
REGION I										
Williams	1,070	1,882	903	1,299	1,234	1,956	1,887	1,079	11,310	
Divide	118	277	125	104	102	273	453	345	1,797	
McKenzie	340	736	298	348	332	653	651	376	3,734	
TOTAL	1,528	2,895	1,326	1,751	1,668	2,882	2,991	1,800	16,841	
ROW PERCENT	9.1	17.2	7.9	10.4	9.9	17.1	17.7	10.7		100.0
REGION II										
Ward	2,842	5,313	2,349	4,057	3,154	5,365	4,125	2,226	29,431	
Bottineau	372	775	360	362	313	779	886	780	4,627	
Burke	132	320	121	113	113	295	467	364	1,925	
McHenry	322	740	317	263	275	607	845	710	4,079	
Mountrail	342	721	271	269	287	615	813	569	3,887	
Pierce	248	636	267	208	190	467	587	492	3,095	
Renville	135	370	130	110	140	311	365	295	1,856	
TOTAL	4,393	8,875	3,815	5,382	4,472	8,439	8,088	5,436	48,900	
ROW PERCENT	9.0	18.1	7.8	11.0	9.1	17.3	16.5	11.1		99.9
REGION III										
Ramsey	516	1,110	589	490	490	1,052	1,271	898	6,416	
Benson	403	866	308	302	256	597	749	580	4,061	
Cavalier	292	706	304	279	260	623	837	621	3,922	
Towner	135	324	160	150	140	305	454	358	2,026	
Eddy	146	282	136	129	126	252	384	348	1,802	
Rolette	676	1,455	587	441	412	938	973	539	6,021	
TOTAL	2,168	4,743	2,084	1,790	1,684	3,767	4,668	3,344	24,248	
ROW PERCENT	8.9	19.6	8.6	7.4	6.9	15.5	19.3	13.8		100.0
REGION IV										
Grand Forks	3,094	5,279	3,260	6,117	3,890	5,801	4,213	2,080	33,734	
Nelson	164	402	183	147	172	401	638	563	2,670	
Walsh	589	1,314	565	563	626	1,304	1,594	1,137	7,692	
Pembina	428	901	329	379	443	856	1,108	776	5,219	
TOTAL	4,275	7,896	4,337	7,205	5,131	8,362	7,553	4,556	49,315	
ROW PERCENT	8.7	16,0	8.8	14.6	10.4	17.0	15.3	9.2		100.0
REGION V										
Cass	3,533	6,914	3,607	6,106	4,997	8,355	6,866	3,336	43,714	
Traill	322	756	381	451	352	717	926	806	4,711	
Steele	110	257	126	104	116	255	376	247	1,591	
Ransom	272	564	240	202	254	538	736	603	3,409	
Richland	761	1,354	1,403	1,390	863	1,311	1,668	1,197	9,947	
Sargent	238	521	204	229	240	493	565	392	2,882	
TOTAL	5,236	10,366	5,961	8,482	6,822	11,669	11,137	6,561	66,254	
ROW PERCENT	7.9	15.6	9.0	12.8	10.3	17.6	16.8	9.9		99.9
REGION VI										
Stutsman	1,000	2,025	899	1,190	1,102	2,049	2,316	1,365	11,946	
Wells	238	624	265	218	230	512	741	669	3,497	
McIntosh	111	369	176	129	137	313	657	479	2,371	
Logan	107	328	161	120	85	244	467	279	1,791	
Foster	160	479	154	170	159	339	471	352	2,284	
Dickey	303	658	248	309	282	569	706	538	3,613	
LaMoure	246	569	231	235	239	485	728	530	3,263	
Barnes	534	1,061	586	709	556	1,063	1,340	1,041	6,890	
Griggs	135	300	127	113	158	287	445	363	1,928	
TOTAL	2,834	6,413	2,847	3,193	2,948	5,661	7,871	5,616	37,583	
ROW PERCENT	7.5	17.1	7.6	8.5	7.8	15.6	20.9	14.9		99.9
REGION VII										
Burleigh	2,475	4,879	2,155	2,796	2,876	5,405	4,305	1,859	26,750	
McLean	585	1,159	419	470	522	1,104	1,256	861	6,376	
Sheridan	104	253	101	83	80	231	375	227	1,454	
Kidder	166	376	138	139	134	307	444	255	1,959	
Emmons	208	611	263	161	162	428	705	440	2,978	
Morton	1,204	2,542	995	1,165	1,207	2,214	2,241	1,128	12,696	
Mercer	474	861	318	490	497	956	872	431	4,899	
Oliver	129	273	95	107	108	247	256	107	1,322	
Grant	165	463	172	133	153	338	480	320	2,224	
Sioux	256	491	156	157	148	285	264	89	1,846	
TOTAL	5,766	11,908	4,812	5,701	5,887	11,515	11,198	5,717	62,504	
ROW PERCENT	9.2	19.1	7.7	9.1	9.4	18.4	17.9	9.1		99.9
REGION VIII										
Stark	1,092	2,159	1,076	1,537	1,223	1,969	1,808	1,014	11,878	
Slope	52	108	53	53	45	90	148	63	612	
Hettinger	149	389	168	135	167	326	500	319	2,153	
Golden Valley	98	250	94	78	98	193	235	164	1,210	
Dunn	217	427	187	224	196	397	491	281	2,420	
Bowman	199	411	161	169	168	358	396	260	2,122	
Billings	48	102	53	54	48	99	137	55	596	
Adams	155	298	113	135	134	321	357	277	1,790	
TOTAL	2,010	4.144	1,905	3,385	2,079	3,753	4,072	2,433	22.781	
ROW PERCENT	8.8	18.2	8.3	10.5	9.1	16.5	17.9	10.7		100.0
STATE TOTAL	28,210	57,240	27,087	35,889	30,691	56,248	57,578	35,483	328,426	
ROW PERCENT	8.6	17.4	8.3	10.9	9.4	17.1	17.5	10.8		100.0

SOURCE: "1980 Census of Population: General Population Characteristics" PC80-1-B36 (Vol. 1, Chapt. B), August 1982.

Table 1 (continued)
Female

	0-4	5-15	16-19	20-24	25-29	30-44	45-64	65+	Total	
									Number	Percent
REGION I										
Williams	937	1,877	914	1,152	954	1,792	1,959	1,342	10,927	
Divide	125	247	97	82	97	256	433	360	1,697	
McKenzie	327	700	232	289	280	573	629	368	3,398	
TOTAL	1,389	2,824	1,243	1,523	1,331	2,621	3,021	2,070	16,022	
ROW PERCENT	8.7	17.6	7.8	9.5	8.3	16.4	18.8	12.9		100.0
REGION II										
Ward	2,737	5,019	2,288	3,661	2,815	5,030	4,370	3,041	28,961	
Bottineau	338	773	377	325	271	753	934	841	4,612	
Burke	115	339	108	94	95	289	484	373	1,897	
McHenry	253	647	252	202	240	593	854	738	3,779	
Mountrail	318	700	253	241	276	586	805	613	3,792	
Pierce	194	554	229	218	190	464	600	622	3,071	
Renville	115	328	109	98	101	297	371	333	1,752	
TOTAL	4,070	8,360	3,616	4,839	3,988	8,012	8,418	6,561	47,864	
ROW PERCENT	8.5	17.5	7.6	10.1	8.3	16.7	17.6	13.7		100.0
REGION III										
Ramsey	478	1,105	538	554	497	1,013	1,259	1,188	6,632	
Benson	381	836	280	252	256	550	732	596	3,883	
Cavalier	268	644	278	194	255	578	816	681	3,714	
Towner	150	336	119	128	108	280	461	444	2,026	
Eddy	134	262	103	102	115	242	413	381	1,752	
Rolette	709	1,407	543	524	462	923	986	602	6,156	
TOTAL	2,120	4,590	1,861	1,754	1,693	3,586	4,667	3,892	24,163	
ROW PERCENT	8.8	19.0	7.7	7.3	7.0	14.8	19.3	16.1		100.0
REGION IV										
Grand Forks	2,912	5,060	2,988	5,192	3,411	5,349	4,280	3,174	32,366	
Nelson	146	397	136	117	133	377	616	641	2,563	
Walsh	534	1,245	502	506	562	1,261	1,692	1,377	7,679	
Pembina	419	880	332	316	363	816	1,110	944	5,180	
TOTAL	4,011	7,582	3,958	6,131	4,469	7,803	7,698	6,136	47,788	
ROW PERCENT	8.4	15.9	8.3	12.8	9.4	16.3	16.1	12.8		100.0
REGION V										
Cass	3,391	6,425	3,509	6,328	4,967	7,719	7,092	5,102	44,533	
Traill	387	696	413	437	299	670	972	1,039	4,913	
Steele	135	244	103	79	87	254	355	258	1,515	
Ransom	235	566	202	192	225	491	703	675	3,289	
Richland	726	1,331	1,018	979	670	1,255	1,705	1,576	9,260	
Sargent	205	495	163	173	184	440	546	424	2,630	
TOTAL	5,079	9,757	5,408	8,188	6,432	10,829	11,373	9,074	66,140	
ROW PERCENT	7.7	14.7	8.2	12.4	9.7	16.4	17.2	13.7		100.0
REGION VI										
Stutsman	918	1,904	847	1,177	1,036	2,035	2,418	1,873	12,208	
Wells	234	578	221	193	191	527	794	744	3,482	
McIntosh	133	322	155	118	112	339	632	618	2,429	
Logan	116	288	126	83	83	259	441	306	1,702	
Foster	188	398	169	173	151	342	497	409	2,327	
Dickey	277	570	254	287	231	567	712	696	3,594	
LaMoure	249	567	203	184	183	456	728	640	3,210	
Barnes	489	1,058	646	634	492	1,009	1,380	1,362	7,070	
Griggs	125	276	78	109	103	267	446	382	1,786	
TOTAL	2,729	5,961	2,699	2,958	2,582	5,801	8,048	7,030	37,808	
ROW PERCENT	7.2	15.8	7.1	7.8	6.8	15.3	21.3	18.6		99.9
REGION VII										
Burleigh	2,241	4,778	2,278	3,359	2,837	5,258	4,570	2,740	28,061	
McLean	540	1,074	357	425	504	952	1,233	922	6,007	
Sheridan	86	226	87	79	76	220	361	230	1,365	
Kidder	154	336	125	102	126	286	448	297	1,874	
Emmons	179	613	240	140	131	442	682	472	2,899	
Morton	1,157	2,271	967	1,113	1,073	2,127	2,165	1,588	12,481	
Mercer	417	839	278	413	409	804	815	530	4,505	
Oliver	118	205	104	87	103	222	232	102	1,173	
Grant	161	365	130	106	141	324	480	343	2,050	
Sioux	205	459	151	153	128	300	271	107	1,774	
TOTAL	5,258	11,186	4,717	5,977	5,528	10,935	11,257	7,331	62,189	
ROW PERCENT	8.4	18.0	7.6	9.6	8.9	17.6	18.1	11.8		100.0
REGION VIII										
Stark	1,077	2,131	1,067	1,420	1,034	1,831	1,950	1,309	11,819	
Slope	43	111	38	34	41	79	131	68	545	
Hettinger	142	397	155	123	124	306	516	359	2,122	
Golden Valley	90	209	76	72	69	184	259	222	1,181	
Dunn	189	452	169	165	157	353	471	251	2,207	
Bowman	175	391	152	164	159	355	400	311	2,107	
Billings	45	123	51	31	40	96	114	42	542	
Adams	125	307	118	125	132	294	387	306	1,794	
TOTAL	1,886	4,121	1,826	2,134	1,756	3,498	4,228	2,868	22,317	
ROW PERCENT	8.4	18.5	8.2	9.6	7.9	15.7	18.9	12.8		100.0
STATE TOTAL	26,542	54,381	25,328	33,504	27,779	53,085	58,710	44,962	324,291	
ROW PERCENT	8.2	16.8	7.8	10.3	8.6	16.4	18.1	13.9		100.0

SOURCE: "1980 Census of Population: General Population Characteristics"
PC80-1-B36 (Vol. 1, Chapt. B), August 1982.

Table 2
Urban and Rural Population by Age and Sex, 1980

	Urban*						Rural					
	Male		Female		Total		Male		Female		Total	
Age	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
0-4	16,826	9.0	15,848	8.4	32,674	8.7	11,384	8.1	10,694	7.8	22,078	8.0
5-15	32,103	17.1	30,590	16.3	62,693	16.7	25,137	17.9	23,791	17.5	48,928	17.7
16-19	15,833	8.4	15,396	8.2	31,229	8.3	11,254	8.0	9,932	7.3	21,186	7.6
20-24	24,757	13.2	23,956	12.7	48,713	13.0	11,132	7.9	9,548	7.0	20,680	7.5
25-29	20,173	10.7	18,624	9.9	38,797	10.3	10,518	7.5	9,155	6.7	19,673	7.1
30-44	34,166	18.2	32,154	17.1	66,320	17.6	22,082	15.7	20,931	15.4	43,013	15.5
45-64	29,032	15.4	30,063	16.0	59,095	15.7	28,546	20.3	28,647	21.0	57,193	20.7
65≥	14,985	8.0	21,357	11.4	36,342	9.7	20,498	14.6	23,605	17.3	44,103	15.9
TOTAL	187,875	100.0	187,988	100.0	375,863	100.0	140,551	100.0	136,303	100.0	276,854	100.0

*Urban refers to the counties of Williams, Ward, Ramsey, Grand Forks, Cass, Stutsman, Burleigh, Morton, and Stark.

SOURCE: "1980 Census of Population; General Population Characteristics"
PC80-1-B36 (Volume 1, Chapter B) August 1982.

Table 3
Population by Age, Sex, and SMSA, 1980

	Bismarck-Mandan SMSA				Grand Forks SMSA				Fargo-Moorhead SMSA			
	Male		Female		Male		Female		Male		Female	
Age	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
0-4	3,679	9.3	3,398	8.4	4,481	8.8	4,181	8.4	5,298	7.8	5,129	7.3
5-15	7,421	18.8	7,069	17.4	8,464	16.6	8,032	16.1	10,717	15.8	10,057	14.4
16-19	3,150	8.0	3,245	8.0	4,740	9.3	4,468	8.9	6,282	9.3	6,599	9.4
20-24	3,961	10.0	4,472	11.0	7,666	15.0	6,588	13.2	9,801	14.5	10,457	15.0
25-29	4,083	10.4	3,910	9.6	5,208	10.2	4,668	9.3	7,109	10.5	6,888	9.9
30-44	7,619	19.3	7,385	18.2	8,514	16.7	8,105	16.2	12,173	18.0	11,543	16.5
45-64	6,546	16.6	6,735	16.6	7,479	14.7	7,736	15.5	10,890	16.1	11,246	16.1
65≥	2,987	7.6	4,328	10.7	4,424	8.7	6,190	12.4	5,427	8.0	7,958	11.4
TOTAL	39,446	100.0	40,542	99.9	50,976	100.0	49,968	100.3	67,697	100.0	69,877	100.0

SOURCE: "1980 Census of Population; General Population Characteristics"
PC80-1-B36 (Volume 1, Chapter B) August 1982.

Table 4
Enrollment in Grades 7-12 for the 1982-83 School Year,
and Percent Change in the Number of Seniors, 1979-1983 by County

	7th	8th	9th	10th	11th	12th	Total	Percent Change Seniors 1979-80 to 1980-81	Percent Change Seniors 1980-81 to 1981-82	Percent Change Seniors 1981-82 to 1982-83
REGION I										
Williams	435	397	379	387	338	346	2,282	-4.3	-4.8	-3.1
Divide	50	39	37	43	42	51	262	-18.3	6.1	-1.9
McKenzie	140	136	110	111	81	80	658	7.6	28.2	-26.6
TOTAL	625	572	526	541	461	477	3,202	-4.1	1.8	-7.9
REGION II										
Ward	959	880	740	804	884	793	5,060	1.2	-0.3	-10.9
Bottineau	152	132	170	149	145	151	899	-2.4	-14.3	9.4
Burke	64	74	61	50	68	76	393	-23.1	28.3	-1.3
McHenry	130	131	126	153	137	158	835	-14.9	-6.4	-1.2
Mountrail	140	128	118	131	113	115	745	4.1	1.3	-25.8
Pierce	108	87	101	103	107	110	616	0	-4.8	-8.3
Renville	63	59	64	65	65	77	393	-11.9	-13.5	20.3
TOTAL	1,616	1,491	1,380	1,455	1,519	1,480	8,941	-2.7	-2.1	-7.7
REGION III										
Ramsey	219	195	200	218	243	234	1,309	12.8	-6.0	-17.0
Benson	134	132	131	149	148	118	812	-10.9	21.3	-20.3
Cavalier	103	84	100	112	122	146	667	-16.0	-4.4	-3.3
Towner	66	48	60	68	60	65	367	5.1	-32.5	16.1
Eddy	42	52	53	57	49	54	307	7.6	-5.6	-19.4
Rolette	254	218	239	240	230	246	1,427	-16.9	26.6	9.8
TOTAL	818	729	783	844	852	863	4,889	-4.0	1.9	-7.0
REGION IV										
Grand Forks	928	814	736	722	758	741	4,699	-2.6	-3.3	-3.0
Nelson	101	90	89	87	119	101	587	-8.5	2.5	-17.2
Walsh	222	200	188	209	212	262	1,293	31.3	-38.0	-6.8
Pembina	166	143	178	160	168	185	1,000	-6.3	-10.9	8.2
TOTAL	1,417	1,247	1,191	1,178	1,257	1,289	7,579	4.2	-13.9	-3.7
REGION V										
Cass	1,248	1,174	1,203	1,246	1,253	1,309	7,433	-2.3	-6.8	1.4
Traill	153	154	139	125	122	162	855	4.9	-24.9	1.3
Steele	35	42	32	37	24	41	211	-10.2	1.9	-24.1
Ransom	125	70	107	89	115	115	621	17.8	-28.3	5.5
Richland	290	298	199	234	223	239	1,483	-25.6	6.6	-13.4
Sargent	91	78	78	71	86	72	476	1.0	-16.0	-19.1
TOTAL	1,942	1,816	1,758	1,802	1,823	1,938	11,079	-4.1	-8.7	-2.1
REGION VI										
Stutsman	337	380	293	333	331	330	2,004	-9.5	-7.5	-4.3
Wells	115	105	105	116	125	126	692	22.3	19.4	-.80
McIntosh	79	51	73	87	80	90	460	20.8	-21.1	-10.9
Logan	54	48	55	52	57	62	328	9.6	2.5	-24.4
Foster	85	75	83	74	91	105	513	-7.4	-9.0	15.4
Dickey	109	90	101	103	97	99	599	-14.8	14.0	-28.3
LaMoure	124	83	91	98	113	121	630	-8.5	-16.2	11.0
Barnes	184	182	194	170	199	206	1,135	0	-9.3	-8.0
Griggs	50	50	38	42	42	51	273	-7.1	7.7	-8.9
TOTAL	1,137	1,064	1,033	1,075	1,135	1,190	6,634	-1.7	-8.4	-7.2
REGION VII										
Burleigh	880	830	771	892	842	841	5,056	-1.6	-1.4	-5.3
McLean	243	225	215	223	230	235	1,371	-15.5	-0.4	0.9
Sheridan	39	28	22	36	30	33	188	-23.1	6.7	3.1
Kidder	75	54	53	51	69	49	351	0	-1.4	-30.0
Emmons	114	100	95	115	120	119	663	-6.8	1.3	-21.7
Morton	474	448	462	456	451	423	2,714	7.5	-1.6	-14.0
Mercer	163	154	168	146	150	148	929	-2.1	12.9	-6.3
Oliver	25	35	38	22	27	41	188	7.7	-9.5	7.9
Grant	58	65	62	79	78	73	415	-16.3	-8.5	-2.7
Sioux	69	68	105	73	89	58	462	-1.4	-11.6	-24.7
TOTAL	2,140	2,007	1,991	2,093	2,086	2,020	12,337	-0.4	-0.2	-8.8
REGION VIII										
Stark	427	443	393	415	437	424	2,539	-1.2	-2.7	-9.0
Slope	11	3	0	0	0	0	14	--	--	--
Hettinger	89	96	97	121	132	121	656	-11.8	3.1	-7.6
Golden Valley	39	45	53	53	55	46	291	-1.9	-5.7	-8.0
Dunn	70	65	74	57	64	59	389	1.5	9.0	-19.2
Bowman	63	77	83	78	79	92	472	4.8	-11.8	-5.2
Billings	19	13	0	0	0	0	32	--	--	--
Adams	47	54	50	54	61	61	327	17.7	-9.6	-7.6
TOTAL	765	796	750	778	828	803	4,720	-0.8	-2.9	-9.1
STATE TOTAL	10,460	9,722	9,412	9,766	9,961	10,060	59,381	-1.5	-5.0	-6.4

SOURCE: Department of Public Instruction, "Enrollment and Teachers Report," P13-030-AA 11/19/82.

APPENDIX II

LABOR FORCE

Table 5
North Dakota Civilian Population and Labor
Force Estimates by Sex and Age, 1982

	Civilian Population						
	Civilian Labor Force						
	Unemployment		Employment	Labor Force			
	N	Row % Rate	N	N	Participation Rate (Row %)	Not In Labor Force	Population
Male							
16-24	4,600	10.7	42,800	47,400	82.1	10,300	57,700
25-44	3,500	4.4	80,400	83,900	98.3	1,500	85,400
45-64	2,000	3.7	54,600	56,600	91.6	5,200	61,800
>65	500	5.4	8,700	9,200	25.8	26,400	35,600
TOTAL	10,600	5.4	186,500	197,100	82.0	43,400	240,500
Female							
16-24	3,500	9.2	38,100	41,600	74.6	14,200	55,800
25-44	2,700	4.4	58,500	61,200	72.2	23,600	84,800
45-64	1,100	3.2	33,500	34,600	54.2	29,200	63,800
>65	100	2.7	3,600	3,700	9.0	37,400	41,100
TOTAL	7,400	5.2	133,700	141,100	57.5	104,400	245,500
Total							
16-24	8,100	9.1	80,900	89,000	78.4	24,500	113,500
25-44	6,200	4.3	138,900	145,100	85.3	25,100	170,220
45-64	3,100	3.4	88,100	91,200	72.6	34,400	125,600
>65	600	4.7	12,300	12,900	16.8	63,800	76,700
TOTAL	18,000	5.3	320,200	338,200	69.6	147,800	486,000

Table 6
North Dakota County Labor Force Annual Average, 1982

	Labor Force	Employment	Unemployment	
			Number	Rate %
REGION I				
Williams	17,509	16,540	969	5.5
Divide	1,870	1,809	61	3.3
McKenzie	5,228	4,987	241	4.6
TOTAL	24,607	23,336	1,271	5.2
REGION II				
Ward	26,039	24,573	1,466	5.6
Bottineau	4,548	4,298	250	5.5
Burke	2,147	2,032	115	5.4
McHenry	3,596	3,246	350	9.7
Mountrail	3,924	3,671	253	6.4
Pierce	3,333	3,174	159	4.8
Renville	1,764	1,683	81	4.6
TOTAL	45,351	42,677	2,674	5.9
REGION III				
Ramsey	6,965	6,626	339	4.9
Benson	3,517	3,236	281	8.0
Cavalier	3,758	3,553	205	5.5
Towner	2,265	2,199	66	2.9
Eddy	1,782	1,645	137	7.7
Rolette	5,150	4,618	532	10.3
TOTAL	23,437	21,877	1,560	6.7
REGION IV				
Grand Forks	28,523	27,122	1,401	4.9
Nelson	2,966	2,811	155	5.2
Walsh	8,693	8,266	427	4.9
Pembina	6,309	5,884	425	6.7
TOTAL	46,491	44,083	2,408	5.2
REGION V				
Cass	47,901	45,747	2,154	4.5
Traill	4,953	4,779	174	3.5
Steele	1,527	1,479	48	3.1
Ransom	3,126	2,960	166	5.3
Richland	9,362	8,935	427	4.6
Sargent	2,965	2,773	192	6.5
TOTAL	69,834	66,673	3,161	4.5
REGION VI				
Stutsman	12,513	11,896	617	4.9
Wells	3,671	3,471	200	5.4
McIntosh	2,603	2,506	97	3.7
Logan	1,617	1,546	71	4.4
Foster	2,344	2,256	88	3.8
Dickey	3,722	3,588	134	3.6
LaMoure	2,830	2,739	91	3.2
Barnes	6,713	6,413	300	4.5
Griggs	1,866	1,783	83	4.4
TOTAL	37,879	36,198	1,681	4.4
REGION VII				
Burleigh	28,765	27,177	1,588	5.5
McLean	5,786	5,397	389	6.7
Sheridan	1,337	1,267	70	5.2
Kidder	1,637	1,503	134	8.2
Emmons	2,694	2,514	180	6.7
Morton	13,136	12,378	758	5.8
Mercer	6,076	5,749	327	5.4
Oliver	1,244	1,178	66	5.3
Grant	1,857	1,760	97	5.2
Sioux	1,518	1,366	152	10.0
TOTAL	64,050	60,289	3,761	5.9
REGION VIII				
Stark	13,993	13,082	911	6.5
Slope	605	574	31	5.1
Hettinger	2,065	1,976	89	4.3
Golden Valley	1,463	1,393	70	4.8
Dunn	2,586	2,424	162	6.3
Bowman	2,395	2,284	111	4.6
Billings	1,275	1,246	29	2.3
Adams	2,140	2,062	78	3.6
TOTAL	26,522	25,041	1,481	5.6
STATE TOTAL	338,167	320,170	17,997	5.3

SOURCE: NDRS-31d, 03/82 BM, 2/14/83 R, non-CPS.

Table 7.
North Dakota County Labor Force Annual Average, 1981

	Labor Force	Employment	Unemployment	
			Number	Rate %
REGION I				
Williams	14,009	13,672	337	2.4
Divide	1,733	1,689	44	2.5
McKenzie	4,264	4,119	145	3.4
TOTAL	20,006	19,480	526	2.6
REGION II				
Ward	26,011	24,639	1,372	5.3
Bottineau	4,324	4,162	162	3.7
Burke	2,087	2,022	65	3.1
McHenry	3,450	3,171	279	8.1
Mountrail	3,888	3,687	201	5.2
Pierce	3,246	3,135	111	3.4
Renville	1,716	1,664	52	3.0
TOTAL	44,722	42,480	2,242	5.0
REGION III				
Ramsey	7,135	6,829	306	4.3
Benson	3,414	3,171	243	7.1
Cavalier	3,784	3,628	156	4.1
Towner	2,210	2,160	50	2.3
Eddy	1,801	1,662	139	7.7
Rolette	5,028	4,474	554	11.0
TOTAL	23,372	21,924	1,448	6.2
REGION IV				
Grand Forks	28,485	26,975	1,510	5.3
Nelson	2,900	2,786	114	3.9
Walsh	8,591	8,212	379	4.4
Pembina	6,242	5,870	372	6.0
TOTAL	46,218	43,843	2,375	5.1
REGION V				
Cass	47,456	45,442	2,014	4.2
Traill	5,016	4,783	233	4.6
Steele	1,525	1,489	36	2.4
Ransom	3,176	3,049	127	4.0
Richland	9,346	8,838	508	5.4
Sargent	2,939	2,777	162	5.5
TOTAL	69,458	66,378	3,080	4.4
REGION VI				
Stutsman	12,541	11,917	624	5.0
Wells	3,631	3,458	173	4.8
McIntosh	2,568	2,472	96	3.7
Logan	1,668	1,591	77	4.6
Foster	2,378	2,286	92	3.9
Dickey	3,725	3,621	104	2.8
LaMoure	2,859	2,755	104	3.6
Barnes	6,911	6,571	340	4.9
Griggs	1,867	1,806	61	3.3
TOTAL	38,148	36,477	1,671	4.4
REGION VII				
Burleigh	29,378	27,665	1,713	5.8
McLean	5,988	5,538	450	7.5
Sheridan	1,362	1,297	65	4.8
Kidder	1,698	1,568	130	7.7
Emmons	2,702	2,529	173	6.4
Morton	13,533	12,600	933	6.9
Mercer	6,371	5,980	391	6.1
Oliver	1,328	1,249	79	5.9
Grant	1,879	1,788	91	4.8
Sioux	1,531	1,352	179	11.7
TOTAL	65,770	61,566	4,204	6.4
REGION VIII				
Stark	12,413	11,871	542	4.4
Slope	636	616	20	3.1
Hettinger	2,059	1,986	73	3.5
Golden Valley	1,390	1,351	39	2.8
Dunn	2,408	2,292	116	4.8
Bowman	2,305	2,249	56	2.4
Billings	1,313	1,284	29	2.2
Adams	2,156	2,115	41	1.9
TOTAL	24,680	23,764	916	3.7
STATE TOTAL	332,365	315,908	16,457	5.0

SOURCE: NDRS-31d, 03/81 BM, 3/11/82 R, non-CPS adjusted.

Table 8
Civilian Non-Institutional Labor Force (Spring 1980), Long-Term Unemployment, and Work Disability

	Total Population Age >16 Total	Civilian Labor Force, Spring 1980 Total	Unemployment Number	Unemployment Rate	Civilian Labor Force, 1979 Total	Percent Unemployed 15 Weeks or More	Civilian Population, Spring 1980 Ages 16-64 Total	Percent With a Work Disability
REGION I								
Williams	16,444	10,935	280	2.6	12,413	1.7	13,972	6.0
Divide	2,728	1,384	27	2.0	1,653	1.0	2,010	6.6
McKenzie	5,032	3,119	155	5.0	3,626	3.9	4,274	7.4
TOTAL	24,204	15,438	462	3.0	17,692	2.4	20,256	6.9
REGION II								
Ward	42,407	23,279	1,568	6.7	31,764	4.1	37,033	5.9
Bottineau	7,014	3,482	260	7.5	4,446	4.4	5,377	7.3
Burke	2,914	1,366	52	3.8	1,685	1.4	2,175	7.4
McHenry	5,918	2,938	254	8.6	3,598	5.6	4,464	11.1
Mountrail	5,608	3,169	177	5.6	3,811	2.8	4,416	10.9
Pierce	4,522	2,522	129	5.1	3,016	4.9	3,397	7.9
Renville	2,648	1,296	51	3.9	1,710	0.9	2,012	5.2
TOTAL	71,031	38,052	2,491	6.5	50,030	4.0	58,874	6.1
REGION III								
Ramsey	9,837	5,876	316	5.4	6,967	2.7	7,705	7.5
Benson	5,433	2,723	176	6.5	3,561	4.2	4,260	8.6
Cavalier	5,739	2,701	126	4.7	3,727	3.8	4,421	6.2
Towner	3,109	1,481	19	1.3	2,164	1.6	2,301	7.4
Eddy	2,735	1,441	139	9.6	1,780	9.1	1,998	9.1
Rolette	7,914	4,143	513	12.4	5,054	10.0	6,523	6.3
TOTAL	[illegible]	18,365	1,289	7.0	23,343	5.1	27,208	7.3
REGION IV								
Grand Forks	[illegible]	28,142	1,839	6.5	39,648	4.8	44,325	4.8
Nelson	[illegible]	1,876	67	3.6	2,307	3.3	2,896	5.1
Walsh	[illegible]	6,112	347	5.7	7,233	4.0	8,406	7.3
Pembina	[illegible]	4,315	232	5.4	5,332	3.9	6,035	5.9
TOTAL	73,271	40,445	2,485	6.1	54,520	4.5	61,662	5.3
REGION V								
Cass	67,814	45,812	2,674	5.8	53,066	4.2	59,182	6.2
Traill	7,462	3,966	216	5.4	4,973	2.2	5,613	6.5
Steele	2,355	1,235	29	2.3	1,517	2.5	1,850	6.3
Ransom	5,073	2,677	121	4.5	3,310	3.6	3,723	8.1
Richland	15,041	8,260	476	5.8	10,973	3.7	12,210	6.6
Sargent	4,069	2,311	81	3.5	2,795	2.7	3,248	6.6
TOTAL	101,814	64,261	3,597	5.6	76,634	3.9	85,826	6.4
REGION VI								
Stutsman	18,271	11,168	660	5.9	12,884	4.0	14,483	8.3
Wells	5,305	2,604	102	3.9	3,219	3.9	3,874	10.5
McIntosh	3,873	2,098	51	2.4	2,418	3.8	2,770	10.2
Logan	2,630	1,388	49	3.5	1,662	2.8	2,035	10.8
Foster	3,402	2,003	82	4.1	2,338	3.2	2,641	8.6
Dickey	5,382	3,161	109	3.4	3,716	2.0	4,134	7.1
LaMoure	4,834	2,476	87	3.5	2,976	2.5	3,657	7.3
Barnes	10,774	5,885	332	5.6	7,306	3.4	8,355	8.1
Griggs	2,895	1,558	24	1.5	1,939	2.3	2,148	9.4
TOTAL	57,366	32,341	1,496	4.6	38,458	3.4	44,097	8.6
REGION VII								
Burleigh	40,470	28,673	[illegible]	4.6	31,973	3.3	37,511	5.4
McLean	8,986	4,726	[illegible]	6.4	5,537	3.6	7,199	6.4
Sheridan	2,150	1,179	37	3.1	1,459	1.6	1,690	10.3
Kidder	2,799	1,546	62	4.0	1,732	4.0	2,236	9.7
Emmons	4,260	2,137	75	3.5	2,517	4.7	3,341	6.0
Morton	18,007	11,682	839	7.2	13,076	6.3	15,117	8.5
Mercer	6,840	4,252	223	5.2	4,852	4.0	5,844	7.8
Oliver	1,769	1,054	50	4.7	1,152	3.7	1,560	9.7
Grant	3,120	1,901	33	1.7	2,094	1.1	2,457	10.4
Sioux	2,199	1,384	231	16.7	1,533	8.7	2,003	7.3
TOTAL	90,600	58,534	3,159	5.4	65,925	4.6	76,958	6.8
REGION VIII								
Stark	17,220	11,103	226	2.0	12,606	2.4	14,793	4.7
Slope	838	491	2	0.4	593	0.5	707	7.5
Hettinger	3,202	1,915	29	1.5	2,269	2.6	2,499	6.8
Golden Valley	1,747	897	12	1.3	1,186	1.9	1,346	5.6
Dunn	3,326	2,007	58	2.9	2,227	4.5	2,807	8.0
Bowman	3,062	1,983	39	2.0	2,223	1.5	2,487	7.6
Billings	821	522	10	1.9	627	[illegible]	724	12.7
Adams	2,695	1,657	36	2.2	1,922	2.1	2,105	8.9
TOTAL	32,911	20,575	412	2.0	23,653	2.5	27,468	6.1
STATE TOTAL	485,964	288,011	15,391	5.3	350,255	4.0	402,349	6.6

SOURCE: Bureau of the Census, "Summary Characteristics for Governmental Units and Standard Metropolitan Statistical Areas," PHC80-3-36, September 1982.

APPENDIX III

EMPLOYMENT AND EMPLOYMENT PROJECTIONS

Table 9

Percent Distribution of Off-Farm Work Characteristics of Farm/Ranch Operators and Spouses for the North Central Region and the United States: 1979

	Northern Plains Region*			United States		
	Total	Operator	Spouse	Total	Operator	Spouse
Total Farms (Number)	214,452	214,452	190,889	2,354,225	2,354,225	2,083,170
Farms Reporting Off-Farm Work	40.6	--	--	52.2	--	--
Only Operator	18.0	18.0	--	24.5	24.5	--
Only Spouse	9.3	--	10.5	8.1	--	9.2
Both Spouse and Operator	13.2	13.2	14.8	19.6	19.6	22.1
Farms Reporting No Off-Farm Work	54.2	--	--	41.9	--	--
Farms Not Responding	5.2	--	--	5.9	--	--
Total Farms, Operators and Spouses (Percent)	100.0	31.2	25.3	100.0	44.1	31.3
TYPE OF OFF-FARM EMPLOYMENT						
Total (Number)	115,388	66,994	48,394	1,689,267	1,037,996	651,271
Employee of Another Farm or Ranch	3.6	5.2	1.3	2.6	3.3	1.5
Employee of Private Business	53.9	52.4	56.1	53.0	51.2	55.9
Government Employee	19.0	16.6	22.4	18.6	16.6	21.9
Self-Employed						
Farm-Related Busines	2.8	3.8	1.5	2.6	3.3	1.4
Non-Farm Business or Profession	10.3	12.6	7.2	10.7	12.7	7.5
Not Reported	10.3	9.4	11.5	12.5	12.9	11.8
HOURS WORKED PER WEEK						
1 to 20	18.5	15.5	22.6	11.7	8.2	17.4
21 to 34	8.9	4.3	15.3	6.4	3.6	11.0
35 Hours or More	59.0	65.6	49.8	67.0	71.8	59.2
Not Reported	13.6	14.6	12.3	14.9	16.4	12.4
WEEKS WORKED						
1 to 26	13.4	15.1	11.2	10.7	9.7	12.2
27 to 49	19.7	16.2	24.5	23.8	21.4	27.7
50 to 52	52.0	53.3	50.1	49.9	52.1	46.6
Not Reported	14.9	15.4	14.2	15.6	16.9	13.5
MILES TRAVELED ONE WAY TO JOB						
Less than 5	21.0	18.8	24.0	15.5	12.8	19.9
5 to 9.9	20.7	17.8	24.7	17.8	15.0	23.3
10 to 29.9	29.6	30.1	29.0	34.0	34.4	33.4
30 or More	8.9	12.4	4.0	11.6	14.9	6.4
Not Reported	19.8	20.9	18.3	21.0	22.9	18.0
BY OCCUPATION						
Professional, Technical, and Kindred Workers	17.3	11.9	24.8	15.0	11.4	20.6
Non-Farm Managers and Administrators	11.4	15.4	5.9	10.8	13.5	6.3
Sales Workers	6.7	6.4	7.2	5.8	5.2	6.7
Clerical and Kindred Workers	14.2	5.3	26.7	12.6	4.4	25.8
Craftsmen and Kindred Workers	11.4	18.7	1.3	13.8	21.2	1.9
Non-Transportation Operatives	4.4	5.6	2.7	8.4	8.3	8.6
Transportation Equipment Operatives	5.5	7.6	2.7	4.8	6.8	1.7
Laborers and Farm Supervisors	6.7	10.5	1.4	5.7	8.1	2.0
Service Workers	12.6	8.4	18.3	11.7	8.3	17.2
Not Reported	9.7	10.2	9.0	11.3	12.7	9.2

* The Northern Plains Region includes the states of North Dakota, South Dakota, Nebraska, and Kansas.

SOURCE: Unpublished Bureau of the Census Tables, and "1978 Census of Agriculture," Vol. 5, Part 6. 1979 Farm Finance Survey (AC78-SR-6), July 1982.

Table 10
Nonagricultural Job Insurance Covered Wage and Salary Employment by Industry and County, 1981 Annual Averages

	Mining	Const.	Mfg.	Trans., 1/ Comm., Ut.	Whole. Trade	Retail Trade	Fin., Ins., RE	Service	Govt. 2/	Total Number	Total Percent
REGION I											
Williams	3,645	1,142	528	962	1,285	2,183	446	2,246	1,240	13,677	
Divide	169	12	9	8	69	161	47	192	180	847	
McKenzie	1,713	338	18	222	157	344	49	468	378	3,687	
TOTAL	5,527	1,492	555	1,192	1,511	3,508	542	2,906	1,798	18,211	
ROW PERCENT	30.3	8.2	3.0	6.5	8.3	19.7	3.0	16.0	9.9	100.0	8.0
REGION II											
Ward	247	1,132	893	952	1,769	4,681	920	4,385	3,786	18,765	
Bottineau	193	93	100	119	218	403	100	434	585	2,245	
Burke	145	18	12	65	74	131	43	32	254	774	
McHenry	78	129	46	131	140	214	57	136	447	1,337	
Mountrail	68	98	86	69	142	381	76	416	527	1,863	
Pierce	4	55	120	96	166	404	86	452	280	1,663	
Renville	100	21	4	42	76	81	27	167	220	738	
TOTAL	835	1,559	1,270	1,448	2,572	6,256	1,319	5,970	6,061	27,290	
ROW PERCENT	3.1	5.7	4.7	5.3	9.4	22.9	4.8	21.9	22.2	100.0	12.1
REGION III											
Ramsey	0	227	123	165	396	1,172	190	1,060	1,076	4,409	
Benson	2	101	370	18	113	114	70	313	417	1,518	
Cavalier	0	52	27	101	159	290	89	304	344	1,366	
Towner	0	45	78	57	141	150	64	184	209	928	
Eddy	16	20	10	14	82	143	48	181	188	702	
Rolette	5	161	245	65	116	422	108	781	1,322	3,225	
TOTAL	23	606	853	420	1,007	2,291	569	2,823	3,556	12,148	
ROW PERCENT	0.2	5.0	7.0	3.5	8.3	18.9	4.7	23.2	29.3	100.0	5.4
REGION IV											
Grand Forks	40	1.224	1,174	1,385	1,353	5,942	1,025	4,978	6,153	23,274	
Nelson	0	90	55	25	184	213	69	284	332	1,252	
Walsh	34	244	116	191	359	865	227	756	1,369	4,161	
Pembina	0	136	627	206	240	541	116	564	591	3,021	
TOTAL	74	1,694	1,972	1,807	2,136	7,561	1,437	6,582	8,445	31,708	
ROW PERCENT	0.2	5.3	6.2	5.7	6.7	23.8	4.5	20.8	26.6	100.0	14.0
REGION V											
Cass	25	2,231	3,628	2,882	5,814	8,500	3,224	10,050	7,747	44,101	
Traill	3	68	286	117	319	416	142	567	565	2,483	
Steele	2	26	37	46	85	82	49	14	166	507	
Ransom	0	79	33	51	214	348	82	311	346	1,646	
Richland	4	270	1,442	234	447	899	184	639	1,303	5,422	
Sargent	0	30	810	47	89	116	43	85	274	1,494	
TOTAL	34	2,704	6,236	3,377	6,968	10,361	3,724	11,666	10,401	55,471	
ROW PERCENT	0.1	4.9	11.2	6.1	12.6	18.7	6.7	21.0	18.8	100.0	24.5
REGION VI											
Stutsman	3	341	1,023	534	514	1,846	446	1,832	1,948	8,507	
Wells	29	74	26	36	240	345	80	350	350	1.530	
McIntosh	10	39	73	29	168	183	60	307	241	1,110	
Logan	1	30	12	4	129	83	23	55	181	518	
Foster	12	74	49	93	160	259	80	298	253	1,278	
Dickey	0	72	117	90	216	398	83	449	407	1,832	
LaMoure	1	28	22	64	236	211	97	123	366	1,148	
Barnes	0	220	156	114	420	881	171	768	884	3,614	
Griggs	1	19	75	20	124	123	53	144	176	735	
TOTAL	57	897	1,553	984	2,207	4,329	1,113	4.326	4,806	20.272	
ROW PERCENT	0.3	4.4	7.7	4.9	10.9	21.4	5.5	21.3	23.7	100.0	9.0
REGION VII											
Burleigh	223	1,506	1,214	1,982	1,885	5,327	1,302	6,341	6,166	25,946	
McLean	230	266	60	341	227	472	112	509	673	2,890	
Sheridan	2	15	15	2	35	55	34	25	149	332	
Kidder	1	10	18	22	48	59	33	94	199	484	
Emmons	3	98	33	25	113	169	48	194	318	1,001	
Morton	71	526	746	473	587	1,142	248	1,339	1,303	6,435	
Mercer	528	1,887	27	513	161	409	93	479	445	4,542	
Oliver	139	85	2	196	3	25	9	8	149	616	
Grant	5	12	12	15	51	106	41	134	197	573	
Sioux	0	18	26	6	33	37	8	298	419	845	
TOTAL	1,202	4,423	2,153	3,575	3,143	7,801	1,928	9,421	10,018	43,664	
ROW PERCENT	2.8	10.0	4.9	8.2	7.2	17.9	4.4	21.6	22.9	100.0	19.3
REGION VIII											
Stark	1,295	794	548	712	785	2,408	398	2,271	1,367	10,578	
Slope	71	0	0	0	0	9	0	1	47	128	
Hettinger	28	68	23	27	125	139	53	143	227	833	
Golden Valley	84	40	35	11	70	193	41	132	141	747	
Dunn	349	137	9	72	129	150	31	73	248	1,198	
Bowman	282	60	14	39	177	258	62	236	231	1,359	
Billings	587	74	0	9	5	39	0	90	98	902	
Adams	2	43	27	39	129	179	42	311	165	937	
TOTAL	2,698	1,216	656	909	1,420	3,375	627	3,257	2,524	16,682	
ROW PERCENT	16.2	7.3	3.9	5.4	8.5	20.2	3.8	19.5	15.1	100.0	7.4
MULTI-COUNTY	282	172	30	47	146	10	10	97	72	866	
ROW PERCENT	32.6	19.9	3.5	5.4	16.9	1.2	1.2	11.2	8.3	100.0	
STATE TOTAL	10,732	14,763	15,278	13,759	21,110	44,662	11,269	47,040	47,681	226,312	
ROW PERCENT	4.7	6.5	6.8	6.1	9.3	19.7	6.0	20.8	21.1	100.0	

1/ Excludes railroad employment.
2/ Excludes military employment.

Table 11
Nonagricultural Wage and Salary Employment by Community and Sex*

Employment

Local Office	1982			1980			1978		
	Total	Female	Row Percent	Total	Female	Row Percent	Total	Female	Row Percent
Bismarck**				24,754	12,046	48.7	24,025	11,017	45.9
Dickinson**				9,586	4,140	43.2	6,859	3,080	44.9
Fargo & West Fargo	41,425	18,834	45.5	42,346	19,131	45.2	41,984	17,968	42.8
Grand Forks**				22,933	11,082	48.3	23,801	11,589	48.7
Jamestown	8,147	4,148	50.9	8,152	4,066	49.9	7,685	3,589	46.7
Mandan	5,368	2,055	38.3	5,562	1,919	34.5	5,224	1,777	34.0
Wahpeton**				4,270	1,872	43.8	4,392	1,811	41.2
	1981			1979			1977		
Devils Lake	4,017	1,984	49.4	4,088	1,971	48.2	3,905	1,824	46.7
Grafton	2,804	1,632	58.2	2,647	1,457	55.0	2,731	1,473	53.9
Minot	17,934	8,796	49.0	17,172	7,549	44.0	16,308	7,107	43.6
Valley City	3,495	1,733	49.6	3,563	1,689	47.4	3,477	1,666	47.9
Williston	10,328	4,067	39.4	7,036	2,879	40.9	5,217	2,222	42.6

*Data based on Community Employment Surveys, which are conducted every two years by Job Service North Dakota.

**Not available for 1982.

Table 12

Nonagricultural Wage and Salary Employment in North Dakota by Major Industry, History and Projections

	1970-1975 Annual Change	1975	1976	1977	1978	1979	1980	1975-1980 Annual Change	1981	1982	Projections 1983	Projections 1984	Projections 1980-1990 OES Matrix Annual Change
Employment: Number													
Mining	98	2,100	2,520	3,060	4,250	5,380	7,840	1,148	10,850	9,260	7,200	7,300	691
Construction	814	13,860	15,860	16,450	18,500	18,370	16,500	528	14,820	15,640	16,600	16,800	790
Manufacturing	1,258	16,200	16,150	15,300	15,730	16,580	15,570	-126	15,290	14,920	15,300	15,300	522
Trans., Comm., & Pub. Util.	104	12,720	13,150	13,760	14,830	16,010	16,780	812	17,110	16,840	16,600	16,800	622
Wholesale Trade	1/	17,000	17,950	18,750	20,080	21,500	20,630	726	21,060	21,380	21,600	21,800	670
Retail Trade	1/	39,570	42,760	43,550	44,650	46,200	46,150	1,316	45,230	45,810	46,500	47,000	1,682
Fin., Ins., & Real Estate	302	8,550	9,140	9,880	10,480	10,970	11,450	580	11,750	11,810	12,300	12,400	402
Services	1,904	34,070	41,230	42,810	45,530	47,780	49,360	2,058	51,940	54,130	56,300	56,900	2,682
Government	1,056	54,520	56,200	57,530	59,960	60,690	60,940	1,284	60,510	60,710	61,100	61,700	443 2/
Total	8,072	203,590	214,960	221,090	234,010	244,190	245,220	8,326	248,560	250,500	253,500	256,000	8,504
Employment: Percent Change													
Mining	6.1	-	20.0	21.4	38.9	26.6	45.7	54.7	38.4	-14.7	-22.2	1.4	8.8
Construction	8.3	-	14.4	3.7	12.5	-0.7	-10.2	3.8	-10.2	5.5	6.1	1.2	4.8
Manufacturing	12.7	-	-0.3	-5.3	2.8	5.4	-6.1	-0.8	-1.8	-2.4	2.5	0.0	3.4
Trans., Comm., & Pub. Util.	0.9	-	3.4	4.6	7.8	8.0	4.8	6.4	2.0	-1.6	-1.4	1.2	3.7
Wholesale Trade	1/	-	5.6	4.5	7.1	7.1	-4.0	4.3	2.1	1.5	1.0	0.9	3.3
Retail Trade	1/	-	8.1	1.8	2.5	1.0	-0.1	3.3	-2.0	1.3	1.5	1.1	3.7
Fin., Ins., & Real Estate	4.3	-	6.9	8.1	6.1	4.7	4.4	6.8	2.6	0.5	1.0	0.8	3.5
Services	6.4	-	5.5	3.8	6.4	4.9	3.3	5.3	5.2	4.2	4.0	1.1	3.5
Government	2.1	-	2.4	2.4	1.6	1.2	0.4	2.4	-0.7	0.3	0.6	1.0	1.3
Total	4.9	-	5.6	2.9	5.8	4.4	0.4	4.1	1.4	0.8	1.2	1.0	3.5

1/ Not available as distinct categories of employment.
2/ Excludes elected public officials.

Table 13
Nonagricultural Wage and Salary Employment* by Industry 1980 and 1990, for North Dakota

	Employment		Change	
	1980	1990	N	%
Total, All Industries	244,816	329,850	85,034	34.7
Mining	7,836	14,748	6,911	88.2
Coal Mining	1,168	1,900	732	62.7
Crude Petrol & Nat. Gas	6,373	12,446	6,073	95.3
Construction	16,503	24,399	7,896	47.8
Gen. Bldg. Contractors	4,467	7,228	2,761	47.8
Gen. Contract. Exc. Bldg.	4,309	4,815	506	11.7
Special Trade Contract.	7,727	12,356	4,629	59.9
Manufacturing	15,575	20,798	5,223	33.5
Durable Goods	7,752	10,882	3,130	40.4
Fabricated Metal Prod.	716	1,167	451	63.0
Non-electrical Machine.	3,925	5,282	1,357	34.6
Farm Machinery & Equip.	3,402	4,502	1,100	32.3
Nondurable Goods	7,823	9,916	2,093	26.8
Food & Kindred Products	4,056	4,769	713	17.6
Meat Products	323	400	77	23.8
Dairy Products	874	825	-49	-5.6
Grainmill Products	308	331	23	7.5
Bakery Products	483	466	-17	-3.5
Confectionary Products	1,130	1,600	470	41.6
Beverages	464	700	236	50.9
Printing & Publishing	2,143	2,830		32.1
Petroleum & Coal Products	431	511		18.6
Transportation, Communications, and Utilities	16,781	22,998	6,217	37.0
Transportation	8,962	11,737	2,775	31.0
Communications	3,940	5,056	1,116	28.3
Utilities	3,879	6,205	2,326	60.0
Wholesale Trade	20,630	27,329	6,699	32.5
Food & Related Products	1,496	1,700	204	13.6
Farm Prod., Raw Materials	3,841	4,900	1,059	27.6
Machinery Equip., Supplies	6,082	7,600	1,518	25.0
Retail Trade	46,148	62,972	16,824	36.5
General Merchandise	6,042	8,180	2,138	35.4
Food & Dairy Stores	6,209	8,657	2,448	39.4
Auto Dealers, Gas Stations	6,566	7,131	565	8.6
Eating & Drinking Places	15,067	22,500	7,433	49.3
Finance, Insurance, and Real Estate	11,452	15,470	4,018	35.1
Finance	6,197	8,036	1,839	29.7
Services	76,716	103,536	26,820	35.0
Hotels & Lodging Places	4,395	6,810	2,415	54.9
Misc. Business Services	3,067	5,506	2,439	79.5
Business Mgt. Services	N/A	N/A	N/A	N/A
Computer Programming	274	700	426	155.5
Detective & Protect. Serv.	N/A	N/A	N/A	N/A
Medical & Other Health Serv.	22,486	33,471	10,985	48.9
Offices of Physicians	3,074	4,600	1,526	49.6
Hospitals	12,640	18,700	6,060	47.9
Convalescent Institutions	5,183	7,100	1,917	37.0
Legal Services	1,065	1,750	685	64.3
Educational Services	28,912	31,000	2,088	7.2
Elementary & Secondary	N/A	N/A	N/A	N/A
Government	33,175	37,600	4,425	13.0
Federal Government	9,916	9,700	-216	-2.2
State, Exc. Educ. & Hosp.	5,243	5,900	657	12.5
Local, Exc. Educ. & Hosp.	18,016	22,000	3,984	22.1

*These projections were developed by the Research and Statistics Section of Job Service North Dakota during the fall of 1982. The Occupational Employment Statistics industrial classification scheme was used. This classification system differs from the 1970 Census based matrix (which uses the 1967 Standard Industrial Classification) employed in the most recent BLS employment projections to 1990, and the current employment statistics published elsewhere (which use the 1972 SIC) in this volume primarily in its treatment of public employment. In addition, unlike the BLS projections which refer to the number of individuals working, these projections refer to the number of jobs being worked.

Table 14
Total National Employment by Industry,* 1978 and Projections to 1990

	Employment		Change	
	1978	1990	N	%
Total, All Industries	94,372,600	114,000,300	19,627,700	20.8
Agriculture, For. & Fish	3,484,700	3,067,900	-416,800	-12.0
Agriculture	3,334,800	2,934,000	-400,800	-12.0
Ag. Production	2,845,800	2,384,800	-461,000	-16.2
Non-hortic. Services	241,900	303,800	61,900	25.6
Mining	884,800	1,059,200	174,400	19.7
Coal Mining	212,700	339,800	127,100	59.8
Crude Petrol & Nat. Gas	453,300	491,000	37,700	8.4
Construction	5,907,900	6,897,800	989,900	16.8
Gen. Bldg. Contractors	1,466,400	1,717,900	251,500	17.2
Gen. Contract. Exc. Bldg.	1,552,300	1,925,300	373,000	24.0
Special Trade Contract.	2,889,200	3,254,600	365,400	12.6
Manufacturing	20,611,600	23,617,100	3,005,500	14.6
Durable Goods	12,347,600	14,550,000	2,202,400	17.8
Fabricated Metal Prod.	1,547,700	1,868,000	320,300	20.7
Non-electrical Machine.	2,316,400	2,980,400	664,000	28.7
Farm Machinery & Equip.	149,600	179,700	30,300	20.2
Nondurable Goods	8,264,000	9,067,100	803,100	9.7
Food & Kindred Products	1,707,700	1,735,900	28,200	1.7
Meat Products	350,600	355,400	4,800	1.4
Dairy Products	186,700	137,300	-49,400	-26.5
Grainmill Products	146,200	156,600	10,400	7.1
Bakery Products	232,700	204,800	-27,900	-12.0
Confectionary Products	77,500	80,200	2,700	3.5
Beverages	227,800	234,400	6,600	2.9
Printing & Publishing	1,259,300	1,342,700	83,400	6.6
Petroleum & Coal Products	208,400	177,800	-30,600	-14.7
Transportation, Communications, and Utilities	5,749,800	6,332,100	582,300	10.1
Transportation	3,287,300	3,524,600	237,300	7.2
Communications	1,203,300	1,384,900	181,600	15.1
Utilities	1,259,300	1,422,600	163,300	13.0
Wholesale Trade	4,822,800	5,353,300	530,500	11.0
Food & Related Products	669,000	718,200	49,200	7.4
Farm Prod., Raw Materials	155,900	100,400	-55,500	-35.6
Machinery Equip., Supplies	1,059,400	1,229,000	169,600	16.0
Retail Trade	15,789,700	20,236,700	4,447,000	28.2
General Merchandise	2,938,400	4,288,100	1,349,700	45.9
Food & Dairy Stores	2,017,500	2,608,700	591,200	29.3
Auto Dealers, Gas Stations	888,000	964,300	76,300	8.6
Eating & Drinking Places	4,325,300	5,575,900	1,250,600	28.9
Finance, Insurance, and Real Estate	5,026,600	6,469,200	1,469,600	29.2
Finance	2,145,400	3,056,200	910,800	42.5
Services	27,074,500	34,987,800	7,913,300	29.2
Hotels & Lodging Places	1,299,400	1,878,700	579,300	44.6
Misc, Business Services	2,665,200	4,174,100	1,508,900	56.6
Business Mgt. Services	267,700	461,200	184,500	66.8
Computer Programming	192,100	325,000	132,900	69.2
Detective & Protect. Serv.	280,800	469,600	188,800	67.2
Medical & Other Health Serv.	6,698,400	10,954,700	4,256,300	63.5
Offices of Physicians	800,700	1,211,500	410,800	51.3
Hospitals	3,900,300	5,859,800	1,959,500	50.2
Convalescent Institutions	791,500	3,228,400	2,436,900	307.9
Legal Services	586,200	775,000	188,800	32.2
Educational Services	7,519,600	8,037,400	517,800	6.9
Elementary & Secondary	5,025,500	5,135,400	109,900	2.2
Government	5,020,000	5,952,300	932,300	18.6
Federal Public Administration	2,272,000	2,385,400	113,400	5.0
State Public Administration	903,000	1,132,700	229,700	25.4
Local Public Administration	1,845,000	2,434,200	589,200	31.9

SOURCE: "The National Industry-Occupation Employment Matrix, 1970, 1978, and Projected 1990," U.S. Department of Labor/Bureau of Labor Statistics Bulletin 2086 (Vol. 2, pp 490-494), April 1981

*The National Industry Occupation Matrix uses 1967 Standard Industrial Classification codes and ". . . uses the occupation and industry classification system of the 1970 Census of the Population." The 1978 estimate and 1990 forecasts then, refer to the number of persons working in their primary job. Bulletin 2086 ". . . is intended to fill the needs of data users until publication of matricies developed from OES survey data."

APPENDIX IV

OCCUPATION

Table 15
Occupations of Employed Persons by Age and Sex for the United States, 1982 (In Thousands)

SEX: Both Sexes

Occupation	Age						Total	
	16-24		25-44		≥45			
	N	%	N	%	N	%	N	%
PROFESSIONAL, TECH., KIND.	1,783	8.8	10,366	21.1	4,802	15.9	16,951	17.0
Engineers	123		860		591		1,574	
MDs, Dentists, & Related	21		506		342		869	
Other Health Workers	335		1,528		531		2,394	
Teachers, Exclud. College	230		2,092		944		3,266	
Engineers, Sci., & Tech.	225		642		247		1,114	
Other Salaried Profess.	618		4,253		1,821		6,892	
Other Self-Employed Profess.	31		487		325		843	
NONFARM MANAGERS & ADMIN.	869	4.3	6,086	12.4	4,538	15.0	11,493	11.5
Manufacturing Salaried	55		849		655		1,559	
Other Salaried	756		4,397		2,918		8,071	
Retail Self-Employed	28		357		453		838	
Other Self-Employed	29		485		512		1,026	
SALES WORKERS	1,515	7.5	2,953	6.0	2,112	7.0	6,580	6.6
Retail Trade	1,134		1,168		1,008		3,310	
Other Industries	380		1,785		1,105		3,270	
CLERICAL AND KINDRED	4,604	22.7	8,740	17.8	5.102	16.9	18,446	18.5
Bookkeepers	292		929		747		1,968	
Office Machine Operators	297		630		180		1,107	
Secretaries, Steno, & Typ.	1,092		2,413		1,350		4,855	
Other Clerical	2,922		4,769		2,825		10,516	
CRAFTSMEN, FOREMEN, & KIND.	1,889	9.3	6,531	13.3	3,852	12.7	12,272	12.3
Carpenters	199		590		293		1,082	
Other Construction Crafts	433		1,345		731		2,509	
Foremen NEC	110		908		670		1,688	
Machinists, Job Setters	98		291		200		589	
Other Metal Workers	73		294		212		579	
Automobile Mechanics	290		652		294		1,236	
Other Mechanics	294		1,168		660		2,122	
Other Crafts	390		1,286		791		2,467	
NONTRANSPORT OPERATIVES	2,056	10.1	4,576	9.3	2,797	9.2	9,429	9.5
Mine Workers	82		153		54		289	
Motor Veh. Equip. Manuf.	34		204		122		360	
Other Durable Goods Manuf.	707		1,806		1,093		3,606	
Nondurable Goods Manuf.	583		1,522		949		3,054	
All Other Operatives	651		890		579		2,120	
TRANSPORT EQUIPMENT OPERATIVES	603	3.0	1,771	3.6	1,003	3.3	3,377	3.4
Delivery Drivers	514		1,521		886		2,921	
All Other	89		249		118		456	
NONFARM LABOR	1,916	9.5	1,649	3.4	953	3.1	4,518	4.5
Construction	292		280		150		722	
Manufacturing	253		405		222		880	
All Other	1,372		962		582		2,916	
PRIVATE HOUSEHOLD	326	1.6	285	0.6	431	1.4	1,042	1.1
SERVICE WORKERS	4,063	20.1	5,071	10.3	3,560	11.8	12,694	12.8
Cleaning	591		874		1,050		2,515	
Food Services	2,307		1,488		965		4,760	
Health Services	502		983		537		2,022	
Personal Services	437		891		522		1,850	
Protective Services	227		833		486		1,546	
FARMERS AND FARM MANAGERS	100	0.5	530	1.1	822	2.7	1,452	1.5
FARM LABOR & FOREMEN	520	2.6	465	1.0	287	1.0	1,272	1.3
Paid Labor & Foremen	425		387		216		1,028	
Unpaid Labor & Foremen	95		78		71		244	
TOTAL	20,239	100.0	49,027	99.9	30,260	100.0	99,526	100.0
ROW PERCENT	20.3		49.3		30.4			100.0

SOURCE: Current Population Survey Annual Averages; totals may not sum due to rounding.

Table 15 (continued)

SEX: Female

Occupation	Age 16-24 N	%	25-44 N	%	>45 N	%	Total N	%
PROFESSIONAL, TECH., KIND.	989	10.2	4,786	22.7	1,875	15.0	7,650	17.7
Engineers	22		54		13		89	
MDs, Dentists, & Related	11		88		28		127	
Other Health Workers	285		1,298		490		2,073	
Teachers, Exclud. College	182		1,862		903		2,945	
Engineers, Sci., & Tech.	55		109		40		204	
Other Salaried Profess.	420		1,607		574		2,601	
Other Self-Employed Profess.	12		152		82		246	
NONFARM MANAGERS & ADMIN.	370	3.8	1,738	8.2	1,111	8.9	3,219	7.4
Manufacturing Salaried	21		137		71		229	
Other Salaried	336		1,388		784		2,508	
Retail Self-Employed	8		123		161		292	
Other Self-Employed	5		92		95		192	
SALES WORKERS	873	9.0	1,196	5.7	916	7.3	2,985	6.9
Retail Trade	718		694		668		2,080	
Other Industries	155		501		249		905	
CLERICAL AND KINDRED	3,748	38.8	7,100	33.6	4,042	32.4	14,890	34.4
Bookkeepers	266		864		676		1,806	
Office Machine Operators	224		468		134		826	
Secretaries, Steno, & Typ.	1,072		2,384		1,325		4,781	
Other Clerical	2,183		3,387		1,907		7,477	
CRAFTSMEN, FOREMEN, & KIND.	149	1.5	470	2.2	245	2.0	864	2.0
Carpenters	2		14		3		19	
Other Construction Crafts	15		28		10		53	
Foremen NEC	21		116		68		205	
Machinists, Job Setters	2		11		5		18	
Other Metal Workers	4		11		7		22	
Automobile Mechanics	2		8		1		11	
Other Mechanics	9		34		13		56	
Other Crafts	90		253		137		480	
NONTRANSPORT OPERATIVES	637	6.6	1,847	8.7	1,354	10.9	3,838	8.9
Mine Workers	2		3		0		5	
Motor Veh. Equip. Manuf.	6		29		27		62	
Other Durable Goods Manuf.	216		680		452		1,348	
Nondurable Goods Manuf.	288		876		619		1,783	
All Other Operatives	127		257		256		640	
TRANSPORT EQUIPMENT OPERATIVES	46	0.5	180	0.9	76	0.6	302	0.7
Delivery Drivers	42		162		70		274	
All Other	4		18		6		28	
NONFARM LABOR	184	1.9	224	1.1	120	1.0	528	1.2
Construction	5		9		4		18	
Manufacturing	34		68		40		142	
All Other	145		146		77		368	
PRIVATE HOUSEHOLD	309	3.2	280	1.3	421	3.4	1,010	2.3
SERVICE WORKERS	2,261	23.4	3,103	14.7	2,128	17.1	7,492	17.3
Cleaning	169		365		428		962	
Food Services	1,323		1,058		745		3,126	
Health Services	432		880		501		1,813	
Personal Services	303		718		401		1,422	
Protective Services	35		80		53		168	
FARMERS AND FARM MANAGERS	8	0.1	72	0.3	92	0.7	172	0.4
FARM LABOR & FOREMEN	88	0.9	127	0.6	90	0.7	305	0.7
Paid Labor & Foremen	67		60		27		154	
Unpaid Labor & Foremen	21		67		63		151	
TOTAL	9,662	99.9	21,124	100.0	12,470	100.0	43,256	99.9
ROW PERCENT	22.3		48.8		28.8			99.9

Table 15 (continued)

SEX: Male

Occupation	Age						Total	
	16-24		25-44		≥45			
	N	%	N	%	N	%	N	%
PROFESSIONAL, TECH., KIND.	795	7.5	5,580	20.0	2,927	16.4	9,302	16.5
Engineers	101		806		578		1,485	
MDs, Dentists, & Related	10		418		314		742	
Other Health Workers	50		230		41		321	
Teachers, Exclud. College	48		612		296		956	
Engineers, Sci., & Tech.	170		533		207		910	
Other Salaried Profess.	398		2,646		1,247		4,291	
Other Self-Employed Profess.	19		335		243		597	
NONFARM MANAGERS & ADMIN.	498	4.7	4,348	15.6	3,427	19.3	8,273	14.7
Manufacturing Salaried	34		712		584		1,330	
Other Salaried	420		3,009		2,134		5,563	
Retail Self-Employed	20		234		292		546	
Other Self-Employed	24		393		417		834	
SALES WORKERS	641	6.1	1,758	6.3	1,196	6.7	3,595	6.4
Retail Trade	416		474		340		1,230	
Other Industries	225		1,284		856		2,365	
CLERICAL AND KINDRED	856	8.1	1,639	5.8	1,061	6.0	3,556	6.3
Bookkeepers	26		65		71		162	
Office Machine Operators	73		162		46		281	
Secretaries, Steno, & Typ.	20		29		25		74	
Other Clerical	739		1,382		918		3,039	
CRAFTSMEN, FOREMEN, & KIND.	1,739	16.4	6,062	21.7	3,607	20.1	11,408	20.3
Carpenters	197		576		290		1,063	
Other Construction Crafts	418		1,317		721		2,456	
Foremen NEC	89		792		602		1,483	
Machinists, Job Setters	96		280		195		571	
Other Metal Workers	69		283		205		557	
Automobile Mechanics	288		644		293		1,225	
Other Mechanics	285		1,134		647		2,066	
Other Crafts	300		1,033		654		1,987	
NONTRANSPORT OPERATIVES	1,418	13.4	2,729	10.0	1,443	8.1	5,590	9.9
Mine Workers	80		150		54		284	
Motor Veh. Equip. Manuf.	28		175		95		298	
Other Durable Goods Manuf.	491		1,126		641		2,258	
Nondurable Goods Manuf.	295		646		330		1,271	
All Other Operatives	524		633		323		1,480	
TRANSPORT EQUIPMENT OPERATIVES	556	5.3	1,591	5.7	928	5.2	3,075	5.5
Delivery Drivers	472		1,359		816		2,647	
All Other	85		231		112		428	
NONFARM LABOR	1,732	16.4	1,425	5.1	833	4.7	3,990	7.1
Construction	287		271		146		704	
Manufacturing	219		337		182		738	
All Other	1,227		816		505		2,548	
PRIVATE HOUSEHOLD	16	0.1	7	<0.1	10	0.1	33	0.1
SERVICE WORKERS	1,802	17.0	1,968	7.0	1,432	8.0	5,202	9.2
Cleaning	422		509		622		1,553	
Food Services	984		430		220		1,634	
Health Services	70		103		36		209	
Personal Services	134		173		121		428	
Protective Services	192		753		433		1,378	
FARMERS AND FARM MANAGERS	91	0.9	459	1.6	730	4.1	1,280	2.3
FARM LABOR & FOREMEN	432	4.1	338	1.2	197	1.1	967	1.7
Paid Labor & Foremen	358		328		189		875	
Unpaid Labor & Foremen	74		8		8		92	
TOTAL	10,576	100.0	27,905	100.0	17,790	100.0	56,271	100.0
ROW PERCENT	18.8		49.6		31.6			100.0

Table 16
Occupations of Employed Persons by Age
for the United States-Percent Change, 1981-1982

Occupation	Age 16-24	Age 25-44	Age ≥45	Total
PROFESSIONAL, TECH., KIND.	-4.6	4.9	2.8	3.2
Engineers	-8.9	4.9	1.5	2.4
MDs, Dentists, & Related	-12.5	7.2	3.0	5.0
Other Health Workers	-5.9	7.2	2.9	4.2
Teachers, Exclud. College	-5.7	2.4	3.7	2.2
Engineers, Sci., & Tech.	-11.8	1.4	-2.4	-2.4
Other Salaried Profess.	-0.1	4.6	2.1	3.4
Other Self-Employed Profess.	-18.4	16.5	10.5	12.3
NONFARM MANAGERS & ADMIN.	0.7	1.0	-2.4	-0.4
Manufacturing Salaried	-9.8	-0.8	0.9	-0.4
Other Salaried	2.2	2.9	-2.7	0.7
Retail Self-Employed	0.0	-4.5	-3.2	-3.7
Other Self-Employed	-14.7	-7.4	-4.3	-6.1
SALES WORKERS	2.2	4.0	0.4	2.4
Retail Trade	1.4	3.5	-0.7	1.5
Other Industries	4.4	4.4	1.5	3.4
CLERICAL AND KINDRED	-5.7	1.3	0.8	-0.6
Bookkeepers	-7.6	1.8	2.0	0.4
Office Machine Operators	1.4	23.0	11.0	14.6
Secretaries, Steno, & Typ.	-10.6	-3.2	3.4	-3.3
Other Clerical	-4.1	1.4	-1.3	-0.9
CRAFTSMEN, FOREMEN, & KIND.	-9.1	-0.9	-3.5	-3.1
Carpenters	-11.6	-0.2	-3.9	-3.6
Other Construction Crafts	-9.6	1.4	-0.4	3.2
Foremen NEC	-12.7	-5.2	-8.7	-7.4
Machinists, Job Setters	-16.2	-15.4	-2.9	-11.8
Other Metal Workers	-2.7	-8.4	-7.8	-7.5
Automobile Mechanics	-7.9	1.1	1.4	1.1
Other Mechanics	-12.8	0.7	-0.3	-1.7
Other Crafts	3.6	-2.8	-2.0	1.5
NONTRANSPORT OPERATIVES	-19.2	-8.4	-6.8	-10.5
Mine Workers	-26.1	-18.6	-5.3	-19.0
Motor Veh. Equip. Manuf.	-45.2	-20.9	-8.3	-20.4
Other Durable Goods Manuf.	-23.3	-11.9	-7.5	-13.2
Nondurable Goods Manuf.	-20.4	-3.5	-7.9	-8.5
All Other Operatives	-9.2	-3.4	-3.7	-5.4
TRANSPORT EQUIPMENT OPERATIVES	-4.1	-1.2	-4.8	-2.8
Delivery Drivers	0.2	-0.3	-4.2	-1.5
All Other	-23.3	-6.0	8.5	-10.8
NONFARM LABOR	-4.6	3.7	-3.2	-1.4
Construction	-9.3	-12.3	-14.3	-9.4
Manufacturing	-21.9	-1.5	-11.2	-10.8
All Other	0.7	9.6	3.9	4.1
PRIVATE HOUSEHOLD	7.6	5.2	-9.1	-0.5
SERVICE WORKERS	-0.2	6.6	-0.1	2.4
Cleaning	-1.7	5.3	-0.8	1.0
Food Services	0.8	7.6	-4.4	1.7
Health Services	-8.1	6.6	1.7	1.4
Personal Services	0.4	8.3	2.8	4.8
Protective Services	14.1	4.0	5.7	6.0
FARMERS AND FARM MANAGERS	-2.0	2.3	-5.0	-2.2
FARM LABOR & FOREMEN	0.2	5.7	-6.2	0.5
Paid Labor & Foremen	0.0	6.9	-3.1	1.7
Unpaid Labor & Foremen	0.0	0.0	-14.5	-4.7
TOTAL	-5.2	1.5	-1.5	-0.9

SOURCE: Current Population Survey Annual Averages; totals may not sum due to rounding.

Table 17
Females by Age and Occupation as a Percent of All Employed Persons in the United States, 1982

Occupation	Age 16-24	 25-44	 >45	 Total
Professional, Tech., & Kind.	55.5	46.2	39.0	45.1
Nonfarm Managers & Admin.	42.6	28.6	24.5	27.2
Sales Workers	57.6	40.5	43.4	45.4
Clerical and Kindred	81.4	81.2	79.2	80.7
Craftsmen, Foremen, & Kind.	7.9	7.2	6.4	7.0
Nontransport Operatives	31.0	40.4	48.4	40.7
Transport Equipment Operatives	7.6	10.2	7.6	8.9
Nonfarm Labor	9.6	13.6	12.6	11.7
Private Household	94.8	98.2	97.7	96.9
Service Workers	55.6	61.2	59.8	59.0
Farmers and Farm Managers	8.0	13.6	11.2	11.8
Farm Labor & Foremen	16.9	27.3	31.4	24.0
Total	47.7	43.1	41.2	43.5

SOURCE: Current Population Survey Annual Averages.

Table 18
Summary of Occupational Employment Statistics for Mining in North Dakota (Second Quarter) 1977 and 1981

	Mining			
	1977		1981	
Occupation	N	%	N	%
Managers & Officers	130	5.0	529	4.8
Professional	111	4.3	363	3.3
Elem/PreSchool Teacher	--		--	
Nurse, Professional	--		--	
Physician &/or Surgeon	--		--	
Announcer	--		--	
Technical	37	1.4	127	1.1
Bio Sci Technician			--	
Electric & Electronic Tech	<5		<5	
Services	16	0.6	96	0.9
Nurse Aide/Orderly	--		--	
Waiter/Waitress	--		--	
Kitchen Helper	--		--	
Food Preparation Worker	--		--	
Janitors, Porters, & Cleaners	11		23	
Maintenance & Production	2,147	82.7	9,277	84.3
Carpenter	<5		<5	
Heavy Equip Operator	290		551	
Truck Driver	206		462	
Line Installer Repairer	--		--	
Automotive Mechanic	60		75	
Stock Clerk, Sales Floor	--		--	
Aircraft Mechanic	--		--	
Bus Driver	--		--	
Motion Pic Project	--		--	
Clerical	148	5.7	531	4.8
Teller	--		--	
Postal Dist Worker	--		--	
General Clerk	28		140	
Secretary	28		93	
Telephone Operator	--		--	
Sales	6	0.2	86	0.8
Sales Clerk	--		--	
Sales Agent/Rep	6		86	
Sales Agent/Insurance	--		--	
TOTAL	2,595	99.9	11,009	100.0

Table 19

Summary of Occupational Employment Statistics for Construction in North Dakota, (Second Quarter) 1978 and 1981

	Construction			
	1978		1981	
Occupation	N	%	N	%
Managers & Officers	1,695	7.7	1,543	10.6
Professional	452	2.1	443	3.0
Elem/PreSchool Teacher	--		--	
Nurse, Professional	--		--	
Physician &/or Surgeon	--		--	
Announcer	--		--	
Technical	119	0.5	125	0.9
Bio Sci Technician	--		--	
Electric & Electronic Tech	34		52	
Services	237	1.1	110	0.8
Nurse Aide/Orderly	--		--	
Waiter/Waitress	--		--	
Kitchen Helper	--		--	
Food Preparation Worker	--		--	
Janitors, Porters, & Cleaners	216		95	
Maintenance & Production	18,123	82.9	11,218	77.1
Carpenter	2,815		1,618	
Heavy Equip Operator	1,729		1,153	
Truck Driver	796		500	
Line Installer Repairer	408		165	
Automotive Mechanic	110		69	
Stock Clerk, Sales Floor	--		--	
Aircraft Mechanic	--		--	
Bus Driver	--		--	
Motion Pic Project	--		--	
Clerical	1,130	5.2	1,006	6.9
Teller	--		--	
Postal Dist Worker	--		--	
General Clerk, Office	342		317	
Secretary	256		231	
Telephone Operator	--		--	
Sales	118	0.5	102	0.7
Sales Clerk	--		--	
Sales Agent/Rep	118		53	
Sales Agent/Insurance	--		--	
TOTAL	21,874	100.0	14,547	100.0

Table 20

Summary of Occupational Employment Statistics for Manufacturing in North Dakota (Second Quarter) 1978 and 1980

	Manufacturing			
	1978		1980	
Occupation	N	%	N	%
Managers & Officers	1,094	7.2	1,273	8.6
Professional	802	5.3	884	6.0
Elem/PreSchool Teacher	--		--	
Nurse, Professional	--		--	
Physician &/or Surgeon	--		--	
Announcer	--		--	
Technical	156	1.0	285	1.9
Bio Sci Technician	<5		<5	
Electric & Electronic Tech	7		18	
Services	357	2.4	274	1.8
Nurse Aide/Orderly	--		--	
Waiter/Waitress	--		--	
Kitchen Helper	--		--	
Food Preparation Worker	20		--	
Janitors, Porters, & Cleaners	300		233	
Maintenance & Production	10,500	69.4	9,688	65.4
Carpenter	43		30	
Heavy Equip Operator	48		25	
Truck Driver	736		482	
Line Installer Repairer	--		--	
Automotive Mechanic	98		97	
Stock Clerk, Sales Floor	--		--	
Aircraft Mechanic	--		--	
Bus Driver	--		--	
Motion Pic Project	--		--	
Clerical	1,587	10.4	1,852	12.5
Teller	--		--	
Postal Dist Worker	--		--	
General Clerk	307		235	
Secretary	218		220	
Telephone Operator	--		--	
Sales	652	4.3	566	3.8
Sales Clerk	114		48	
Sales Agent/Rep	538		512	
Sales Agent/Insurance	--		--	
TOTAL	15,139	100.0	14,882	100.0

Table 21
Summary of Occupational Employment Statistics for
Transportation, Communications, and Public Utilities in North Dakota
(Second Quarter) 1979 and 1980

	Transportation, Communications, and Public Utilities			
	1979		1980	
Occupation	N	%	N	%
Managers & Officers	1,144	8.5	983	7.8
Professional	893	6.6	1,126	9.0
Elem/PreSchool Teacher	--		--	
Nurse, Professional	--		--	
Physician &/or Surgeon	--		--	
Announcer	169		208	
Technical	316	2.4	595	4.7
Bio Sci Technician	--		--	
Electric & Electronic Tech	--		--	
Services	137	1.0	193	1.5
Nurse Aide/Orderly	--		--	
Waiter/Waitress	--		--	
Kitchen Helper	--		--	
Food Preparation Worker	--		--	
Janitors, Porters, & Cleaners	99		119	
Maintenance & Production	7,668	57.1	6,265	49.9
Carpenter	--		--	
Heavy Equip Operator	140		51	
Truck Driver	1,512		22	
Line Installer Repairer	524		454	
Automotive Mechanic	56		97	
Stock Clerk, Sales Floor	--		--	
Aircraft Mechanic	17		--	
Bus Driver	213		96	
Motion Pic Project	--		--	
Clerical	3,015	22.5	2,990	23.8
Teller	--		--	
Postal Dist Worker	--		--	
General Clerk	285		268	
Secretary	227		243	
Telephone Operator	432		--	
Sales	256	1.9	393	3.1
Sales Clerk	<5		<5	
Sales Agent/Rep	216		209	
Sales Agent/Insurance	--		--	
TOTAL	13,429	100.0	12,545	99.8

Table 22

Summary of Occupational Employment Statistics for Wholesale Trade in North Dakota (Second Quarter) 1976 and 1980

	Wholesale Trade			
	1976		1980	
Occupation	N	%	N	%
Managers & Officers	2,046	11.3	2,172	10.1
Professional	449	2.5	769	3.6
Elem/PreSchool Teacher	--		--	
Nurse, Professional	--		--	
Physician &/or Surgeon	--		--	
Announcer	--		--	
Technical	315	1.7	202	0.9
Bio Sci Technician	--		--	
Electric & Electronic Tech	267		118	
Services	434	2.4	537	2.5
Nurse Aide/Orderly	--		--	
Waiter/Waitress	14		67	
Kitchen Helper	--		--	
Food Preparation Worker	5		--	
Janitors, Porters, & Cleaners	374		228	
Maintenance & Production	7,428	41.1	8,428	39.2
Carpenter	196		35	
Heavy Equip Operator	--		--	
Truck Driver	910		1,099	
Line Installer Repairer	--		--	
Automotive Mechanic	1,111		674	
Stock Clerk, Sales Floor	--		--	
Aircraft Mechanic	--		--	
Bus Driver	--		--	
Motion Pic Project	--		--	
Clerical	4,541	25.1	5,503	25.6
Teller	--		--	
Postal Dist Worker	--		--	
General Clerk	946		990	
Secretary	283		388	
Telephone Operator	--		--	
Sales	2,881	15.9	3,367	18.0
Sales Clerk	757		682	
Sales Agent/Rep	2,079		3,041	
Sales Agent/Insurance	--		--	
TOTAL	18,094	100.0	21,478	99.0

Table 23
Summary of Occupational Employment Statistics for Retail Trade in North Dakota (Second Quarter) 1976 and 1980

	Retail Trade			
	1976		1980	
Occupation	N	%	N	%
Managers & Officers	4,208	9.6	4,593	9.7
Professional	1,166	2.7	1,254	2.6
Elem/PreSchool Teacher	--		--	
Nurse, Professional	--		--	
Physician &/or Surgeon	--		--	
Announcer	--		--	
Technical	100	0.2	85	0.2
Bio Sci Technician	--		--	
Electric & Electronic Tech	8		--	
Services	13,454	30.8	14,778	31.2
Nurse Aide/Orderly	--		--	
Waiter/Waitress	5,099		4,876	
Kitchen Helper	1,075		856	
Food Preparation Worker	1,610		2,571	
Janitors, Porters, & Cleaners	874		797	
Maintenance & Production	9,449	21.6	9,485	20.0
Carpenter	96		152	
Heavy Equip Operator	--		--	
Truck Driver	591		324	
Line Installer Repairer	--		--	
Automotive Mechanic	1,585		1,376	
Stock Clerk, Sales Floor	1,382		1,354	
Aircraft Mechanic	--		--	
Bus Driver	--		--	
Motion Pic Project	--		--	
Clerical	6,333	14.5	6,948	14.6
Teller	--		--	
Postal Dist Worker	--		--	
General Clerk	715		693	
Secretary	153		226	
Telephone Operator	--		--	
Sales	9,033	20.6	10,285	21.7
Sales Clerk	6,182		6,688	
Sales Agent/Rep	2,778		3,401	
Sales Agent/Insurance	--		--	
TOTAL	43,743	100.0	47,428	100.0

Table 24
Summary of Occupational Employment Statistics for Finance, Insurance, and Real Estate in North Dakota (Second Quarter) 1976 and 1981

	Finance, Insurance, and Real Estate			
	1976		1981	
Occupation	N	%	N	%
Managers & Officers	2,138	23.1	2,363	20.9
Professional	616	6.7	773	6.8
Elem/PreSchool Teacher	--		--	
Nurse, Professional	<5		<5	
Physician &/or Surgeon	--		--	
Announcer	--		--	
Technical	55	0.6	71	0.6
Bio Sci Technician	--		--	
Electric & Electronic Tech	--		--	
Services	566	6.1	716	6.3
Nurse Aide/Orderly	--		--	
Waiter/Waitress	--		--	
Kitchen Helper	--		--	
Food Preparation Worker	56		18	
Janitors, Porters, & Cleaners	244		591	
Maintenance & Production	197	2.1	330	2.9
Carpenter	27		10	
Heavy Equip Operator	--		--	
Truck Driver	19		--	
Line Installer Repairer	--		--	
Automotive Mechanic	--		--	
Stock Clerk, Sales Floor	--		--	
Aircraft Mechanic	--		--	
Bus Driver	--		--	
Motion Pic Project	--		--	
Clerical	4,530	49.0	6,120	54.2
Teller	1,169		1,476	
Postal Dist Worker	--		--	
General Clerk	331		522	
Secretary	441		725	
Telephone Operator	--		--	
Sales	1,151	12.4	927	8.2
Sales Clerk	8		--	
Sales Agent/Rep	55		109	
Sales Agent/Insurance	922		548	
TOTAL	9,253	100.0	11,300	99.9

Table 25
Summary of Occupational Employment Statistics for Services in North Dakota,* (Second Quarter) 1978 and 1981

	Services			
	1978		1981	
Occupation	N	%	N	%
Managers & Officers	2,200	7.4	2,685	8.3
Professional	3,369	11.3	4,215	13.0
Elem/PreSchool Teacher	15		38	
Nurse, Professional	685		825	
Physician &/or Surgeon	395		478	
Announcer	--		--	
Technical	2,043	6.9	2,625	8.1
Bio Sci Technician			<5	
Electric & Electronic Tech	367		91	
Services	12,886	43.2	13,071	40.2
Nurse Aide/Orderly	1,968		2,365	
Waiter/Waitress	1,568		1,789	
Kitchen Helper	936		790	
Food Preparation Worker			--	
Janitors, Porters, & Cleaners	1,034		1,235	
Maintenance & Production	3,637	12.2	3,573	11.0
Carpenter	62		62	
Heavy Equip Operator	--		--	
Truck Driver	30		47	
Line Installer Repairer	--		--	
Automotive Mechanic	132		146	
Stock Clerk, Sales Floor	--		--	
Aircraft Mechanic	--		--	
Bus Driver	12		41	
Motion Pic Project	238		93	
Clerical	5,262	17.6	5,813	17.9
Teller	--		--	
Postal Dist Worker	--		--	
General Clerk	524		472	
Secretary	1,044		1,176	
Telephone Operator	--		--	
Sales	408	1.4	486	1.5
Sales Clerk	215		150	
Sales Agent/Rep	168		315	
Sales Agent/Insurance	--		--	
TOTAL	29,805	100.0	32,468	100.0

*Excludes educational services and hospitals.

APPENDIX V

EARNINGS, INCOME AND EXPENDITURES

Table 26
Personal Income in North Dakota, 1978-1981
(Thousands of Dollars)

	1978 Personal Income			1979 Personal Income		
	Wage & Salary Disbursements	Proprietors' Income	Total	Wage & Salary Disbursements	Proprietors' Income	Total
By Industry						
Private	$1,896,382	$910,819	$2,807,201	$2,179,834	$806,688	$2,986,522
Farm	77,285	523,454	600,739	82,852	392,383	475,235
Ag. Serv., For., Fish., & Other	9,872	5,141	15,013	11,465	4,874	16,339
Mining	73,169	3,028	76,197	107,639	18,257	125,896
Construction	275,719	77,798	353,517	294,334	80,260	374,594
Manufacturing	190,622	5,964	196,586	216,736	5,583	222,319
Trans., Comm., & Pub. Utilities	235,533	34,739	270,272	279,105	38,611	317,716
Wholesale Trade	254,758	46,849	301,607	299,890	47,320	347,210
Retail Trade	299,608	63,360	362,968	336,265	64,799	401,064
Finance, Insurance, & Real Estate	113,723	46,244	159,967	128,395	46,542	174,937
Services	366,093	104,242	470,335	423,153	108,059	531,212
Government & Government Enterprises	657,227	--	657,227	700,743	--	700,743
Federal, Civilian	141,527	--	141,527	147,754	--	147,754
Federal, Military	145,330	--	145,330	147,371	--	147,371
State and Local	370,370	--	370,370	405,618	--	405,618
Other Labor Income 1/	179,756	--	179,756	200,643	--	200,643
Total, by Place of Work	2,733,365	910,819	3,644,184	3,081,220	806,688	3,887,908
Row Percent	75.0	25.0	100.0	79.3	20.7	100.0
Derivation by Place of Residence						
Less: Personal Contributions for Soc. Ins. by Place of Wk. 2/			184,723			218,587
Less: Residence Adjustment 3/			103,072			112,503
Other Income Plus: Dividends, Interest, and Rent			944,631			1,075,357
Plus: Transfer Payments 4/			560,703			618,779
Personal Income by Place of Residence			4,861,723			5,250,954
Per Capita Personal Income			7,472			8,052
Total Population (Thousands)			650.6			652.2

*See footnotes at end of table.

Table 26 (continued)
Personal Income in North Dakota, 1978-1981
(Thousands of Dollars)

	1980 Personal Income			1981 Personal Income		
	Wage & Salary Disbursements	Proprietors' Income	Total	Wage & Salary Disbursements	Proprietors' Income	Total
By Industry						
Private	$2,394,902	$440,312	$2,835,214	$2,729,959	$1,004,008	$3,733,967
Farm	91,749	57,958	149,707	99,058	601,093	700,151
Ag. Serv., For., Fish., & Other	12,913	4,169	17,082	15,086	4,409	19,495
Mining	168,136	16,119	184,255	266,107	22,844	288,951
Construction	281,782	71,128	352,910	285,003	67,411	352,414
Manufacturing	222,000	4,740	226,740	239,759	5,099	244,858
Trans., Comm., & Pub. Utilities	318,248	33,243	351,491	353,597	36,389	389,986
Wholesale Trade	315,144	53,019	368,163	353,800	58,877	412,677
Retail Trade	355,967	55,308	411,275	374,221	60,869	435,090
Finance, Insurance, & Real Estate	146,625	33,213	179,838	163,709	27,695	191,404
Services	482,338	111,415	593,753	579,619	119,322	698,941
Government & Government Enterprises	757,087	--	757,087	848,335	--	848,335
Federal, Civilian	160,894	--	160,894	171,510	--	171,510
Federal, Military	155,693	--	155,693	177,656	--	177,656
State and Local	440,500	--	440,500	499,169	--	499,169
Other Labor Income 1/	221,078	--	221,078	248,310	--	248,310
Total, by Place of Work	3,373,067	440,312	3,813,379	3,826,604	1,004,008	4,830,612
Row Percent	88.5	11.5	100.0	79.2	20.8	100.0
Derivation by Place of Residence						
Less: Personal Contributions for Soc. Ins. by Place of Wk. 2/			247,645			295,410
Less: Residence Adjustment 3/			116,046			135,175
Other Income Plus: Dividends, Interest, and Rent			1,232,278			1,485,385
Other Income Plus: Transfer Payments 4/			733,074			839,448
Personal Income by Place of Residence			5,415,040			6,724,860
Per Capita Personal Income			8,277			10,213
Total Population (Thousands)			654.2			658.5

1/ Other Labor Income is a supplement to wages and salaries and consists primarily of employer contributions to private pension and welfare funds.

2/ Contributions made by individuals under the various social insurance programs (esp. old age, survivors, disability, and health insurance-OASDHI) are excluded from personal income by handling them as deductions.

3/ The residence adjustment is measured as the total inflows of commuters' labor income minus the total outflow.

4/ Transfer payments are income payments to persons for which they do not render current services and include such categories as public and private retirement payments, disability benefits, unemployment insurance, income maintenance payments, and educational payments to veterans.

SOURCE: Bureau of Economic Analysis/Regional Economics Information System; Detailed Components of State Personal Income (Intermediate Table) August 1982.

Table 27
Personal Income in the United States, 1979-1981
(Thousands of Dollars)

	1979			1980			1981		
	Personal Income			Personal Income			Personal Income		
	Wage & Salary Disbursements	Proprietors' Income	Total	Wage & Salary Disbursements	Proprietors' Income	Total	Wage & Salary Disbursements	Proprietors' Income	Total
By Industry									
Private	$1,002,018	$129,590	$1,131,608	$1,096,647	$115,161	$1,211,808	$1,209,392	$123,958	$1,333,350
Farm	8,902	30,234	39,136	9,818	18,301	28,119	10,444	23,161	33,605
Ag. Serv., For., Fish., & Other	4,422	1,512	5,934	5,015	1,345	6,360	5,683	1,424	7,107
Mining	19,550	2,104	21,654	23,718	1,943	25,661	29,470	2,647	32,117
Construction	72,195	15,251	87,446	75,657	14,233	89,890	79,679	13,481	93,160
Manufacturing	333,880	2,581	336,461	354,443	2,299	356,742	385,143	2,481	387,624
Trans., Comm., & Pub. Utilities	94,400	4,418	98,818	103,124	4,673	107,797	113,316	5,025	118,341
Wholesale Trade	85,710	6,628	92,338	95,060	6,880	101,940	105,118	7,369	112,487
Retail Trade	123,241	14,186	137,427	132,298	12,656	144,954	142,735	13,925	156,660
Finance, Insurance, & Real Estate	68,544	8,434	76,978	78,513	5,504	84,017	88,498	3,837	92,335
Services	191,174	44,242	235,416	219,001	47,327	266,328	249,306	50,608	299,914
Government & Government Enterprises	230,650	—	230,650	253,954	--	253,954	275,120	—	275,120
Federal, Civilian	54,355	--	54,355	59,489	--	59,489	63,359	--	63,359
Federal, Military	21,563	—	21,563	23,847	—	23,847	27,602	—	27,602
State and Local	154,732	--	154,732	170,618	--	170,618	184,159	--	184,159
Other Labor Income 1/	114,863	—	114,863	127,185	—	127,185	140,347	—	140,347
Total, by Place of Work	1,347,531	129,590	1,477,121	1,477,786	115,161	1,592,947	1,624,859	123,958	1,748,817
Row Percent	91.1	8.9	100.0	92.8	7.2	100.0	92.9	7.1	100.0
Derivation by Place of Residence									
Less: Personal Contributions for Soc. Ins. by Place of Wk. 2/			80,769			88,316			104,439
Less: Residence Adjustment 3/			426			488			484
Other Plus: Dividends, Interest, and Rent			297,393			352,213			425,370
Income Plus: Transfer Payments 4/			250,260			297,237			336,334
Personal Income by Place of Residence			1,943,579			2,153,593			2,405,598
Per Capita Personal Income			8,655			9,480			10,491
Total Population (Thousands)			224,568.5			227,166.7			229,307.0

1/ Other Labor Income is a supplement to wages and salaries and consists primarily of employer contributions to private pension and welfare funds.

2/ Contributions made by individuals under the various social insurance programs (esp. old age, survivors, disability, and health insurance-OASDHI) are excluded from personal income by handling them as deductions.

3/ The residence adjustment is measured as the total inflows of commuters' labor income minus the total outflow.

4/ Transfer payments are income payments to persons for which they do not render current services and include such categories as public and private retirement payments, disability benefits, unemployment insurance, income maintenance payments, and educational payments to veterans.

SOURCE: Bureau of Economic Analysis/Regional Economics Information System; Detailed Components of United States Personal Income (Intermediate Table) August 1982.

Table 28
Percent Distribution of Personal Income in North Dakota and the United States, 1979-1981

	1979		1980		1981	
	North Dakota	United States	North Dakota	United States	North Dakota	United States
By Industry						
Private	76.8	76.6	74.3	76.1	77.3	76.3
Farm	12.2	2.6	3.9	1.8	14.5	1.9
Ag. Serv., For., Fish., & Other	0.4	0.4	0.4	0.4	0.4	0.4
Mining	3.2	1.5	4.8	1.6	6.0	1.8
Construction	9.6	5.9	9.3	5.6	7.3	5.3
Manufacturing	5.7	22.8	5.9	22.4	5.1	22.2
Trans., Comm., & Pub. Utilities	8.2	6.7	9.2	6.8	8.0	6.8
Wholesale Trade	8.9	6.3	9.7	6.4	8.5	6.4
Retail Trade	10.3	9.3	10.8	9.1	9.0	9.0
Finance, Insurance, & Real Estate	4.5	5.2	4.7	5.3	4.0	5.3
Services	13.7	15.9	15.8	16.7	14.5	17.2
Government & Government Enterprises	18.0	15.6	19.9	15.9	17.6	15.7
Federal, Civilian	3.8	3.7	4.2	3.7	3.6	3.6
Federal, Military	3.8	1.4	4.1	1.5	3.7	1.6
State and Local	10.4	10.5	11.6	10.7	10.3	10.5
Other Labor Income 1/	5.2	7.8	5.8	8.0	5.1	8.0
Total, by Place of Work	100.0	100.0	100.0	100.0	100.0	100.0
Less Contributions for Social Insurance and Residence Adjustment 2/, 3/						
Net Labor & Proprietor's Income by Place of Residence	67.7	71.8	63.7	69.8	65.4	68.3
Other Dividends, Interest, and Rent	20.5	15.3	22.8	16.4	22.1	17.7
Income Transfer Payments 4/	11.8	12.9	13.5	13.8	12.5	14.0
Personal Income by Place of Residence	100.0	100.0	100.0	100.0	100.0	100.0

1/ Other Labor Income is a supplement to wages and salaries and consists primarily of employer contributions to private pension and welfare funds.

2/ Contributions made by individuals under the various social insurance programs (esp. old age, survivors, disability, and health insurance-OASDHI) are excluded from personal income by handling them as deductions.

3/ The residence adjustment is measured as the total inflows of commuters' labor income minus the total outflow.

4/ Transfer payments are income payments to persons for which they do not render current services and include such categories as public and private retirement payments, disability benefits, unemployment insurance, income maintenance payments, and educational payments to veterans.

SOURCE: Bureau of Economic Analysis Regional Economics Information System; Detailed Components of State and United States Personal Income (Intermediate Table) August 1982.

Table 29

Percent Change in Personal Income for North Dakota, 1978-1981

	1978-1979 Personal Income			1979-1980 Personal Income			1980-1981 Personal Income		
	Wage & Salary Disbursements	Proprietors' Income	Total	Wage & Salary Disbursements	Proprietors' Income	Total	Wage & Salary Disbursements	Proprietors' Income	Total
By Industry									
Private	14.9	-11.4	6.4	9.9	-45.4	-5.1	14.0	128.0	6.4
Farm	7.2	-25.0	-20.9	10.7	-85.2	-68.5	8.0	937.1	367.7
Ag. Serv., For., Fish., & Other	16.1	-5.2	8.8	12.6	-14.5	4.5	16.8	5.8	14.1
Mining	47.1	502.9	65.2	56.2	-11.7	46.4	58.3	41.7	56.8
Construction	6.8	3.2	6.0	-4.3	-11.4	-5.8	1.1	-5.2	-0.1
Manufacturing	13.7	-6.4	13.1	2.4	-15.1	2.0	8.0	7.8	8.0
Trans., Comm., & Pub. Utilities	18.5	11.1	17.6	14.0	-13.9	10.6	11.1	9.5	11.0
Wholesale Trade	17.7	1.0	15.1	5.1	12.0	6.0	12.3	11.0	12.1
Retail Trade	12.2	2.3	10.5	5.9	-14.6	2.5	5.1	10.1	5.8
Finance, Insurance, & Real Estate	12.9	0.6	9.4	14.2	-28.6	2.8	11.7	-16.6	6.4
Services	15.6	3.7	12.9	14.0	3.1	11.8	20.2	7.1	17.7
Government & Government Enterprises	0.6	—	6.6	8.0	—	8.0	12.1	—	12.1
Federal, Civilian	4.4	--	4.4	8.9	--	0.9	6.6	--	6.6
Federal, Military	1.4	—	1.4	5.6	—	5.6	14.1	—	14.1
State and Local	9.5	--	9.5	8.6	--	8.6	13.1	--	13.3
Other Labor Income 1/	11.6	—	11.6	10.2	—	10.2	12.3	—	12.3
Total, by Place of Work	12.7	-11.4	6.7	9.5	-45.4	-1.9	13.4	128.0	26.7
Derivation by Place of Residence									
Less: Personal Contributions for Soc. Ins. by Place of Wk. 2/			18.3			13.3			19.3
Less: Residence Adjustment 3/			9.2			3.1			16.5
Other Plus: Dividends, Interest, and Rent			13.8			14.6			20.5
Income Plus: Transfer Payments 4/			10.4			18.5			14.5
Personal Income by Place of Residence			8.0			3.1			24.2
Per Capita Personal Income			7.8			2.8			23.4
Total Population (Thousands)			0.2			0.3			0 6

1/ Other Labor Income is a supplement to wages and salaries and consists primarily of employer contributions to private pension and welfare funds.

2/ Contributions made by individuals under the various social insurance programs (esp. old age, survivors, disability, and health insurance-OASDHI) are excluded from personal income by handling them as deductions.

3/ The residence adjustment is measured as the total inflows of commuters' labor income minus the total outflow.

4/ Transfer payments are income payments to persons for which they do not render current services and include such categories as public and private retirement payments, disability benefits, unemployment insurance, income maintenance payments, and educational payments to veterans.

SOURCE: Bureau of Economic Analysis/Regional Economics Information System; Detailed Components of United States Personal Income (Intermediate Table) August 1982.

Table 30
Percent Change in Personal Income for the United States, 1979-1981

	1979-1980 Personal Income			1980-1981 Personal Income		
	Wage & Salary Disbursements	Proprietors' Income	Total	Wage & Salary Disbursements	Proprietors' Income	Total
By Industry						
Private	9.4	-11.1	7.1	10.3	7.6	10.0
Farm	10.3	-39.5	-28.2	6.3	26.6	19.5
Ag. Serv., For., Fish., & Other	13.4	-11.0	7.2	13.3	5.9	11.7
Mining	21.3	-7.7	18.5	24.3	36.2	25.2
Construction	4.8	-6.7	2.8	5.3	-5.3	3.6
Manufacturing	6.2	-10.9	6.0	8.7	7.9	8.7
Trans., Comm., & Pub. Utilities	9.2	5.8	9.1	9.9	7.5	9.8
Wholesale Trade	10.9	3.8	10.4	10.6	7.1	10.3
Retail Trade	7.3	-10.8	5.5	7.9	10.0	8.1
Finance, Insurance, & Real Estate	14.5	-34.7	9.1	12.7	-30.3	9.9
Services	14.6	7.0	13.1	13.8	6.9	12.6
Government & Government Enterprises	10.1	--	10.1	8.3	--	8.3
Federal, Civilian	9.4	--	9.4	6.5	--	6.5
Federal, Military	10.6	--	10.6	15.7	--	15.7
State and Local	10.3	--	10.3	7.9	--	7.9
Other Labor Income 1/	10.7	--	10.7	10.3	--	10.3
Total, by Place of Work	9.7	-11.1	7.8	10.0	7.6	9.8
Derivation by Place of Residence						
Less: Personal Contributions for Soc. Ins. by Place of Wk. 2/			9.3			18.3
Less: Residence Adjustment 3/			14.6			-0.8
Other Plus: Dividends, Interest, and Rent			18.4			20.8
Income Plus: Transfer Payments 4/			18.8			13.2
Personal Income by Place of Residence			10.8			11.7
Per Capita Personal Income			9.5			10.7
Total Population (Thousands)			1.2			0.9

1/ Other Labor Income is a supplement to wages and salaries and consists primarily of employer contributions to private pension and welfare funds.

2/ Contributions made by individuals under the various social insurance programs (esp. old age, survivors, disability, and health insurance-OASDHI) are excluded from personal income by handling them as deductions.

3/ The residence adjustment is measured as the total inflows of commuters' labor income minus the total outflow. .

4/ Transfer payments are income payments to persons for which they do not render current services and include such categories as public and private retirement payments, disability benefits, unemployment insurance, income maintenance payments, and educational payments to veterans.

SOURCE: Bureau of Economic Analysis/Regional Economics Information System; Detailed Components of United States Personal Income (Intermediate Table) August 1982.

Table 31
Total and Average Personal Income by Type of Earner for the United States and North Dakota, 1975-1980

UNITED STATES (000,000s)	1975	1976	1977	1978	1979	1980
Personal Income $						
By Place of Work						
Farm Proprietor						
Total	23,927	18,600	18,413	25,760	30,234	18,301
Average	8,285	6,529	6,555	9,253	10,895	6,604
Nonfarm Proprietor						
Total	65,400	74,983	84,685	91,954	99,356	96,860
Average	11,219	12,763	13,690	14,129	14,568	13,823
Wage & Salary Job						
Total	800,828	884,487	978,273	1,101,286	1,232,668	1,350,601
Average	9,544	10,261	10,966	11,795	12,788	13,972
By Place of Residence						
Per Capita						
Total	1,258,643	1,385,201	1,534,708	1,726,732	1,943,579	2,153,593
Average	5,842	6,357	6,984	7,775	8,655	9,480
NORTH DAKOTA (000s)						
Personal Income $						
By Place of Work						
Farm Proprietor						
Total	771,868	376,392	187,094	523,454	392,383	57,958
Average	16,660	8,226	4,135	11,569	8,780	1,313
Nonfarm Proprietor						
Total	277,160	297,560	350,486	387,365	414,305	382,354
Average	12,511	13,738	15,344	15,920	16,367	14,781
Wage & Salary Job						
Total	1,807,153	2,058,995	2,226,722	2,553,609	2,880,577	3,151,989
Average	7,792	8,518	9,089	9,640	10,842	11,829
By Place of Residence						
Per Capita						
Total	3,931,300	3,828,880	3,982,373	4,861,723	5,250,954	5,415,040
Average	6,157	5,934	6,135	7,472	8,052	8,277

SOURCE: Bureau of Economic Analysis/Regional Economics Information System; Detailed Components of State and United States Personal Income (Intermediate Table) August 1982.

Table 32
Covered Employment and Average Monthly Earnings Per Job by Industry for the United States and North Dakota, 1979 1/

	Employment						
	U.S.			North Dakota			
Industry	Number	Percent		Number	Percent		Average Earnings/Job $ As a % of U.S.
Total*							
Annual Average Jobs	89,574,874		100.0	224,807		99.9	
Av. Earnings/Job $	1,093			933			-14.6
Mining							
Annual Average Jobs	957,499		1.1	5,611		2.5	
Av. Earnings/Job $	1,717			1,608			-6.3
Construction							
Annual Average Jobs	4,574,133		5.1	18,540		8.3	
Av. Earnings/Job $	1,318			1,321			0.2
Manufacturing							
Annual Average Jobs	21,211,536		23.7	16,632		7.4	
Av. Earnings/Job $	1,315			1,086			-17.4
Trans., Comm., & P. Ut.							
Annual Average Jobs	4,595,333		5.1	12,606		5.6	
Av. Earnings/Job $	1,482			1,315			-11.3
Wholesale Trade							
Annual Average Jobs	5,271,426		5.9	21,445		9.5	
Av. Earnings/Job $	1,363			1,174			-13.7
Retail Trade							
Annual Average Jobs	15,112,006		16.9	46,169		20.5	
Av. Earnings/Job $	664			592			-10.8
Fin., Ins., & Re. Est.							
Annual Average Jobs	4,896,436		5.5	10,571		4.7	
Av. Earnings/Job $	1,121			974			-13.1
Services							
Annual Average Jobs	15,901,052		17.7	43,428		19.3	
Av. Earnings/Job $	909			732			-19.5
Agriculture							
Annual Average Jobs	1,042,818		1.2	1,849		0.8	
Av. Earnings/Job $	693			795			14.7
Total Government							
Annual Average Jobs	15,856,695	99.9	17.6	47,957	100.0	21.3	
Av. Earnings/Job $	1,100			951			-13.5
Federal Government							
Annual Average Jobs	2,939,516	18.5		9,617	20.1		
Av. Earnings/Job $	1,513			1,259			-16.8
State Government							
Annual Average Jobs	3,603,244	22.7		14,016	29.2		
Av. Earnings/Job $	1,079			975			-9.6
Local Government							
Annual Average Jobs	9,313,935	58.7		23,324	50.7		
Av. Earnings/Job $	978			815			-16.7
Nonclassifiable							
Annual Average Jobs	155,044		0.2	Not Applicable			
Av. Earnings/Job $	923						

*Totals may not add due to rounding.

SOURCE: "Employment and Wages: Annual Average 1979," U.S. Department of Labor/Bureau of Labor Statistics, January, 1983.

1/ Excludes military and railroad earnings.

Table 33

Job Insurance Covered Earnings by Industry for North Dakota, 1978-1981 1/

	Thousands of Dollars				Percent Change		
	1978	1979	1980	1981	1978-1979	1979-1980	1980-1981
Mining	73,811	108,274	167,346	265,109	46.7	54.6	58.4
Construction	275,607	293,909	277,819	276,842	6.6	-5.6	-0.4
Manufacturing	190,800	216,803	217,993	237,903	13.6	0.5	9.1
TCPU	168,219	198,903	230,754	270,277	18.2	16.0	17.1
Wholesale Trade	255,364	302,072	310,165	353,423	18.3	2.7	13.9
Retail Trade	292,227	327,766	344,799	361,658	12.2	5.2	4.9
FIRE	109,692	123,498	140,157	157,378	12.6	13.5	12.3
Services	328,688	381,620	430,345	524,311	16.1	12.8	21.8
Agriculture	15,402	17,635	19,349	21,768	14.5	9.7	12.5
Government	511,226	547,090	590,522	666,327	7.0	7.9	12.8
TOTAL	2,221,036	2,517,570	2,729,248	3,134,995	13.4	8.4	14.9
Real, 1967 Dollars	1,137,170	1,158,032	1,106,437	1,150,857	1.8	-4.6	4.0

1/ Excludes military and railroad earnings.

Table 34
Nominal and Real Earnings Per Job in Covered Employment by Industry in North Dakota, 1978-1981 1/

						Percent Change		
	Dollars$	1978	1979	1980	1981	1978-79	1979-80	1980-81
Mining	Nominal	1,432	1,608	1,822	2,063	12.3	13.3	13.2
	Real '67	733	740	738	757	1.0	-0.2	2.6
Construction	Nominal	1,246	1,321	1,427	1,568	6.0	8.0	9.9
	Real '67	638	608	579	576	-4.8	-4.9	-0.6
Manufacturing	Nominal	1,009	1,086	1,188	1,299	7.6	9.4	9.3
	Real '67	517	500	482	477	-3.4	-3.7	-1.1
TCPU	Nominal	1,223	1,315	1,475	1,637	7.5	12.1	11.0
	Real '67	626	605	598	601	-3.4	-1.2	0.5
Wholesale Trade	Nominal	1,059	1,174	1,288	1,397	10.9	9.7	8.5
	Real '67	542	540	522	513	-0.4	-3.3	-1.7
Retail Trade	Nominal	546	592	623	670	8.4	5.2	7.5
	Real '67	280	272	253	246	-2.7	-7.1	-2.8
FIRE	Nominal	906	974	1,068	1,165	7.5	9.7	9.1
	Real '67	464	448	433	428	-3.4	-3.4	-1.2
Services	Nominal	664	732	814	929	10.2	11.2	14.1
	Real '67	340	337	330	341	-1.0	-2.1	3.3
Agriculture	Nominal	723	794	866	912	9.8	9.1	5.3
	Real '67	370	365	351	335	-1.3	-3.8	-4.6
Government	Nominal	895	951	1,031	1,165	6.3	8.4	13.0
	Real '67	458	437	418	428	-4.5	-4.3	2.4
Total	Nominal	859	933	1,019	1,144	8.6	9.3	12.3
	Real '67	440	429	413	420	-2.5	-3.7	1.7

1/ Excludes military and railroad earnings.

Table 35

Covered Employment, Average Monthly Earnings Per Job, and Total Earnings by Industry and Quarter in North Dakota, 1981-1982II 1/

Industry	1981				1982	
	I	II	III	IV	I	II
Total						
Monthly Average Jobs	218,030	228,571	231,594	236,660	224,495	230,752
Av. Earnings/Job $	1,066	1,124	1,152	1,223	1,184	1,217
Total Earnings $	697,334,024	770,510,024	800,185,024	875,419,104	797,237,368	842,529,920
Mining						
Monthly Average Jobs	9,216	10,771	11,623	11,563	11,235	9,374
Av. Earnings/Job $	1,973	2,008	2,057	2,188	2,121	2,109
Total Earnings $	54,561,810	64,866,620	71,733,510	75,914,271	71,484,730	59,314,298
Construction						
Monthly Average Jobs	11,041	14,328	17,279	16,821	10,464	15,276
Av. Earnings/Job $	1,418	1,503	1,577	1,763	1,565	1,767
Total Earnings $	46,974,510	64,598,060	81,768,770	88,964,840	49,136,310	80,978,122
Manufacturing						
Monthly Average Jobs	14,350	15,048	15,583	16,094	14,976	14,621
Av. Earnings/Job $	1,236	1,261	1,304	1,386	1,346	1,378
Total Earnings $	53,214,230	56,922,940	60,959,190	66,689,530	60,490,250	60,437,271
Trans., Comm., & P. Ut.						
Monthly Average Jobs	13,431	13,590	13,877	14,203	14,018	13,912
Av. Earnings/Job $	1,528	1,596	1,664	1,751	1,619	1,175
Total Earnings $	61,579,570	65,064,350	69,273,200	74,620,920	68,068,580	71,588,479
Wholesale Trade						
Monthly Average Jobs	20,632	21,139	21,472	21,276	20,689	21,227
Av. Earnings/Job $	1,350	1,379	1,406	1,449	1,470	1,450
Total Earnings $	83,587,820	87.430,940	90,598,410	95,508,040	91,268,460	92,312,708
Retail Trade						
Monthly Average Jobs	42,263	45,413	46,007	46,229	44,014	45,983
Av. Earnings/Job $	644	660	665	709	691	698
Total Earnings $	81,603,850	89,943,110	91,780,730	98,325,510	91,267,800	96,308,345
Fin., Ins., & Re. Est.						
Monthly Average Jobs	11,132	11,320	11,312	11,293	11,256	11,371
Av. Earnings/Job $	1,129	1,101	1,124	1,307	1,229	1,185
Total Earnings $	37,697,300	37,399,320	38,142,660	44,142,660	41,514,660	40,424,562
Services						
Monthly Average Jobs	45,687	46,579	47,958	47,955	47,692	48,973
Av. Earnings/Job $	872	909	934	998	956	991
Total Earnings $	119,519,010	127,076,810	134,318,480	143,634,030	136,762,360	145,644,232
Agriculture						
Monthly Average Jobs	1,365	2,059	2,419	2,113	1,576	2,278
Av. Earnings/Job $	815	874	927	995	876	878
Total Earnings $	3,337,330	5,398,110	6,723,600	6,308,040	3,747,420	6,000,742
Government						
Monthly Average Jobs	48,917	48,323	44,065	49,112	48,721	47,738
Av. Earnings/Job $	1,058	1,185	1,172	1,249	1,255	1,323
Total Earnings $	155,258,580	171,809,770	154,886,460	183,953,910	183,496,800	189,521,148

1/ Excludes military and railroad earnings.

Table 36: Selected Family Characteristics and Expenditures by Pre-Tax Family Income (1972-1974)

	Annual Income Category				
	<$3,000	$3,000-3,999	$4,000-4,999	$5,000-5,999	$6,000-6,999
Families in Universe (thousands)............	10,277	3,890	3,680	3,365	3,574
Row percent................................	14.3	5.4	5.1	4.7	5.0
Average family size........................	1.7	2.2	2.3	2.6	2.7
Average age of head........................	58.7	54.6	52.2	48.0	45.4
Average number of children under 18.........	0.4	0.7	0.7	0.8	1.0
Source of Pre-Tax Money Income, Total*......$	1,608	3,452	4,451	5,405	64.4
Wages and salaries........................	338	1,197	1,974	3,104	4,213
As a % of total money income............	21.0	34.7	44.4	57.4	65.7
Net income from own business/ professional practice.....................	9	89	122	173	205
Net income from own farm..................	6	53	83	121	99
Social security & railroad retirement.....	774	1,178	1,220	918	809
Estate, trust, dividend, net rental, and other interest income.................	65	169	233	254	286
Public assistance.........................	271	372	231	173	134
Unemployment & workmen's compensation, public pension & veteran payments.........	75	189	285	262	321
Other.....................................	70	204	301	400	347
Selected Annual Expenditures, Total.........$	1,374.36	1,911.00	2,143.96	2,315.04	2,543.84
As a % of total money income..........	85.5	55.4	48.2	42.8	39.7
Food at home..........................	668.20	954.72	971.36	1,019.20	1,134.64
As a % of total money income..........	48.6	27.7	21.8	18.9	17.7
Cereals & bakery products...........	82.68	117.00	114.92	126.88	139.36
Meat, poultry, fish & eggs..........	251.16	379.60	372.32	380.64	429.00
Dairy products......................	90.48	122.72	133.12	136.24	156.00
Fruit & vegetables..................	107.64	143.00	145.08	151.84	166.92
Other...............................	136.24	192.40	205.92	223.60	243.36
Food away from home.....................	135.72	192.40	240.24	290.16	305.24
As a % of total money income........	8.4	5.6	5.4	5.4	4.8
Alcoholic beverages.....................	34.32	47.32	79.56	83.20	77.48
Tobacco and smoking supplies............	50.44	80.08	90.48	102.44	113.88
Personal care products..................	58.24	74.36	88.40	101.92	111.28
Nonprescription drugs & med. supplies...	40.56	45.24	47.32	58.76	60.32
Housekeeping supplies...................	62.92	81.12	94.64	102.96	111.80
Electricity, gas & fuels................	218.40	255.84	300.56	293.28	322.92
As a % of total money income..........	13.6	7.4	6.8	5.4	5.0
Gasoline, motor oil, coolant & similar..	105.56	179.92	231.40	263.12	306.28
As a % of total money income..........	6.6	5.2	5.2	4.9	4.8

Table 36 (continued)

	Annual Income Category				
	$7,000-7,999	$8,000-9,999	$10,000-11,999	$12,000-14,999	$15,000-19,999
Families in Universe (thousands)	3,302	6,449	6,524	7,659	7,847
Row percent	4.6	9.0	9.1	10.7	10.9
Average family size	2.7	3.0	3.4	3.6	3.6
Average age of head	44.7	42.3	42.3	42.4	43.3
Average number of children under 18	0.9	1.1	1.2	1.3	1.3
Source of Pre-Tax Money Income, Total* $	7,415	8,902	10,810	13,248	17,069
Wages and salaries	5,435	7,231	9,191	11,473	14,788
As a % of total money income	73.3	81.2	85.0	86.6	86.6
Net income from own business/ professional practice	262	311	372	487	742
Net income from own farm	152	94	134	152	174
Social security & railroad retirement	616	412	316	302	230
Estate, trust, dividend, net rental, and other interest income	306	288	242	359	519
Public assistance	64	39	34	24	18
Unemployment & workmen's compensation, public pension & veteran payments	293	259	292	283	332
Other	287	267	229	167	265
Selected Annual Expenditures, Total $	2,733.64	2,930.72	3,369.08	3,611.92	4,149.60
As a % of total money income	36.9	32.9	31.2	27.3	24.3
Food at home	1,171.04	1,224.60	1,424.28	1,473.16	1,654.64
As a % of total money income	15.8	13.8	13.2	11.1	9.7
Cereals & bakery products	144.04	147.68	169.52	177.84	192.92
Meat, poultry, fish & eggs	446.68	459.16	542.36	558.48	656.76
Dairy products	159.12	173.68	196.04	204.36	229.32
Fruit & vegetables	165.88	169.00	198.64	209.56	227.24
Other	254.80	275.08	317.72	322.40	348.92
Food away from home	381.68	425.88	482.56	565.24	703.04
As a % of total money income	5.1	4.8	4.5	4.3	4.1
Alcoholic beverages	107.12	111.80	127.92	134.16	170.56
Tobacco and smoking supplies	125.32	130.00	141.96	140.40	146.64
Personal care products	134.68	138.84	153.40	184.08	220.48
Nonprescription drugs & med. supplies	51.48	56.68	69.16	71.24	69.68
Housekeeping supplies	119.08	124.80	149.24	170.56	201.76
Electricity, gas & fuels	296.40	330.72	369.72	402.48	438.36
As a % of total money income	4.0	3.7	3.4	3.0	2.6
Gasoline, motor oil, coolant & similar	347.36	387.40	450.84	470.60	544.44
As a % of total money income	4.7	4.4	4.2	3.6	3.2

Table 36 (continued)

	Annual Income Category				
	$20,000-24,999	>$25,000	Incomplete Reporting of Income	Total Reporting	All Families
Families in Universe (thousands)	3,461	3,372	8,331	63,400	71,731
Row percent	4.8	4.7	11.6	88.4	100.0
Average family size	3.7	3.8	2.9	2.9	2.9
Average age of head	45.1	47.5	49.3	47.5	47.7
Average number of children under 18	1.3	1.3	0.9	1.0	1.0
Source of Pre-Tax Money Income, Total* $	21,945	35,530	923	10,584	9,462
Wages and salaries	18,607	24,002	473	8,118	7,230
As a % of total money income	84.8	67.6	51.2	76.7	76.4
Net income from own business/ professional practice	1,322	6,569	10	691	612
Net income from own farm	328	499	7	137	122
Social security & railroad retirement	224	407	170	568	522
Estate, trust, dividend, net rental, and other interest income	830	2,859	122	439	402
Public assistance	10	5	36	114	105
Unemployment & workmen's compensation, public pension & veteran payments	361	518	55	266	242
Other	263	671	48	251	227
Selected Annual Expenditures, Total $	4,638.92	5,295.16	2,530.32	3,003.00	2,945.28
As a % of total money income	21.1	14.9	--	28.4	31.1
Food at home	1,797.12	1,914.12	1,043.64	1,256.32	1,231.36
As a % of total money income	8.2	5.4	--	11.9	13.0
Cereals & bakery products	208.52	216.32	121.16	150.28	146.64
Meat, poultry, fish & eggs	713.96	770.64	423.28	484.64	477.36
Dairy products	247.00	256.36	144.56	172.12	169.00
Fruit & vegetables	254.80	290.16	153.92	180.96	177.84
Other	372.84	380.64	200.72	268.32	260.52
Food away from home	833.56	1,144.52	434.72	455.00	452.40
As a % of total money income	3.8	3.2	--	4.3	4.8
Alcoholic beverages	203.84	270.92	84.24	114.92	111.28
Tobacco and smoking supplies	138.84	139.36	89.96	114.92	111.80
Personal care products	247.52	296.92	133.12	146.64	145.08
Nonprescription drugs & med. supplies	103.48	105.04	53.56	62.40	61.36
Housekeeping supplies	226.20	256.36	109.72	138.32	135.20
Electricity, gas & fuels	503.88	530.92	290.68	347.88	339.04
As a % of total money income	2.3	1.5	--	3.3	3.6
Gasoline, motor oil, coolant & similar	584.48	637.00	290.68	366.60	357.76
As a % of total money income	2.7	1.8	--	3.5	3.8

*Totals may not add due to rounding.

SOURCE: Adapted from "Consumer Expenditure Survey: Diary Survey, July 1972-June 1974" U. S. Department of Labor; Bureau of Labor Statistics Bulletin 1959,1977.

Table 37
Consumer Price Index
All Urban Consumers
All Items Index

Month	1980	1979-1980 Percent Change	1981	1980-1981 Percent Change	1982	1981-1982 Percent Change
January	233.2	+13.9	260.5	+11.7	282.5	+8.4
February	236.4	+14.1	263.2	+11.3	283.4	+7.7
March	239.8	+14.7	265.1	+10.6	283.1	+6.8
April	242.5	+14.7	266.8	+10.0	284.3	+6.6
May	244.9	+14.4	269.0	+ 9.8	287.1	+6.7
June	247.6	+14.3	271.3	+ 9.6	290.6	+7.1
July	247.8	+13.2	274.4	+10.7	292.2	+6.5
August	249.4	+12.8	276.5	+10.9	292.8	+5.9
September	251.7	+12.7	279.3	+11.0	293.3	+5.0
October	253.9	+12.6	279.9	+10.2	294.1	+5.1
November	256.2	+12.6	280.7	+ 9.6	293.6	+4.6
December	258.4	+12.4	281.5	+ 8.9	292.4	+3.9
Annual Average	246.8	+13.5	272.4	+10.4	289.1	+6.1

APPENDIX VI

POVERTY

Table 30
Persons Below the Poverty Level by Age and County, and Persons Below 125 Percent of the Poverty Level by County, 1979

	Total Population	Civilian Non-Institutional Population	Persons With Income Below 125 Percent of Poverty		Persons with Income Below 100 Percent of the Poverty Level: Total		Age		Related Children	
	Number	Number	Number	Percent	Number	Percent	65+	64-18	17-5	<4
REGION I										
Williams	22,237	21,879	2,617	12.0	1,915	8.8	373	946	430	166
Divide	3,494	3,383	553	16.3	361	10.7	112	168	43	38
McKenzie	7,132	7,027	1,459	20.8	1,028	14.6	109	511	294	114
TOTAL	32,863	32,289	4,629	14.3	3,304	10.2	594	1,625	767	318
ROW PERCENT					100.0		18.0	49.2	23.2	9.6
REGION II										
Ward	58,392	55,784	8,801	15.8	5,615	10.1	759	2,764	1,266	826
Bottineau	9,338	8,841	1,715	19.4	1,109	12.5	217	572	228	92
Burke	3,822	3,806	932	24.5	686	18.0	135	312	184	55
McHenry	7,858	7,835	2,106	26.9	1,439	18.4	345	677	341	76
Mountrail	7,679	7,494	1,679	22.4	1,220	16.3	168	553	337	162
Pierce	6,166	6,006	1,337	22.3	878	14.6	195	363	244	76
Renville	3,608	3,551	856	24.1	593	16.7	61	288	192	52
TOTAL	96,863	93,317	17,426	18.7	11,540	12.4	1,880	5,529	2,792	1,339
ROW PERCENT					100.0		16.3	47.9	24.2	11.6
REGION III										
Ramsey	13,048	12,551	1,947	15.5	1,175	9.4	233	563	231	148
Benson	7,944	7,854	2,381	30.3	1,826	23.2	207	752	574	293
Cavalier	7,636	7,527	1,592	21.2	1,003	13.3	181	512	221	89
Towner	4,052	3,976	818	20.6	619	15.6	98	296	156	69
Eddy	3,554	3,495	696	19.9	459	13.1	122	190	108	39
Rolette	[illegible]	11,763	4,524	38.5	3,554	30.2	227	1,519	1,254	554
TOTAL	[illegible]	47,166	11,958	25.4	8,636	18.3	1,068	3,832	2,544	1,192
ROW PERCENT					100.0		12.4	44.4	29.4	13.8
REGION IV										
Grand Forks	66,100	60,039	9,690	16.1	6,601	11.0	695	3,818	1,181	907
Nelson	5,233	5,049	1,230	24.4	791	15.7	184	384	163	60
Walsh	15,371	14,324	3,194	22.1	2,211	15.4	506	965	553	187
Pembina	10,399	10,170	1,742	17.1	1,234	12.1	289	553	267	125
TOTAL	97,103	89,582	15,856	17.7	10,837	12.1	1,674	5,720	2,164	1,279
ROW PERCENT					100.0		15.4	52.8	20.0	11.8
REGION V										
Cass	88,247	84,655	10,525	12.4	7,712	9.1	1,011	4,903	1,183	615
Traill	9,624	9,043	1,289	14.3	806	8.9	232	382	119	73
Steele	3,106	3,104	526	16.9	371	12.0	51	206	82	32
Ransom	6,698	6,430	1,138	17.8	765	11.9	158	334	195	78
Richland	19,204	17,434	2,909	16.7	1,956	11.2	407	1,075	275	199
Sargent	5,512	5,447	880	16.2	576	10.6	129	271	126	50
TOTAL	132,391	126,113	17,267	13.7	12,186	9.7	1,908	7,171	1,980	1,047
ROW PERCENT					100.0		16.3	58.8	16.3	8.6
REGION VI										
Stutsman	24,154	22,861	3,626	15.9	2,631	11.5	567	1,214	558	292
Wells	6,979	6,850	1,600	23.4	1,181	17.2	217	554	315	95
McIntosh	4,900	4,713	1,413	30.0	1,144	24.3	274	520	264	86
Logan	3,493	3,449	1,061	30.8	785	22.8	134	349	206	96
Foster	4,611	4,502	824	18.3	525	11.7	83	254	135	53
Dickey	7,207	6,737	1,837	27.3	1,250	18.6	192	615	326	117
LaMoure	6.473	6,273	1,495	23.8	1,059	16.9	146	537	274	102
Barnes	13,960	13,312	2,692	20.2	1,778	13.4	272	974	400	152
Griggs	3,714	3,662	667	18.2	450	12.3	121	213	72	44
TOTAL	75,391	72,359	15,215	21.0	10,803	14.9	2,006	5,230	2,550	1,037
ROW PERCENT					100.0		18.5	48.4	23.6	9.5
REGION VII										
Burleigh	54,811	53,650	5,688	10.6	4,234	7.9	641	2,231	910	452
McLean	12,288	12,305	2,438	19.8	1,601	13.0	386	731	353	131
Sheridan	2,819	2,786	862	30.9	644	23.1	69	338	163	74
Kidder	3,833	3,792	1,416	37.3	1,082	28.5	115	559	296	112
Emmons	5,877	5,798	2,023	34.9	1,429	24.6	261	627	434	107
Morton	25,177	24,713	3,871	15.7	2,632	10.7	495	1,241	697	199
Mercer	9,378	9,177	1,254	13.7	963	10.5	161	479	236	87
Oliver	2,495	2,490	452	18.2	372	14.9	53	189	107	23
Grant	4,274	4,268	1,739	40.7	1,381	32.4	193	619	432	137
Sioux	3,620	3,591	1,487	41.4	1,167	32.5	73	508	415	171
TOTAL	124,572	122,570	21,230	17.3	15,505	12.7	2,447	7,522	4,043	1,493
ROW PERCENT					100.0		15.8	48.5	26.1	9.6
REGION VIII										
Stark	23,697	22,833	3,380	14.8	2,687	11.8	471	1,247	779	190
Slope	1,157	1,155	338	29.3	264	22.9	30	134	82	17
Hettinger	4,275	4,178	1,219	29.2	874	20.9	67	437	282	88
Golden Valley	2,391	2,344	523	22.3	337	14.4	48	165	84	40
Dunn	4,627	4,616	1336	28.9	974	21.1	43	451	348	92
Bowman	4,229	4,171	792	19.0	567	13.4	88	263	169	37
Billings	1,138	1,138	269	23.6	216	19.0	8	94	87	27
Adams	3,584	3,494	790	22.6	592	17.1	88	311	156	42
TOTAL	45,098	43,929	8,647	19.7	6,506	14.8	883	3,102	1,987	533
ROW PERCENT					100.0		13.6	47.7	30.5	8.2
STATE TOTAL	652,692	627,52[illegible]	112,228	17.9	[illegible]	[illegible]	12,560	39,731	18,827	8,238
ROW PERCENT					100.0		[illegible]	[illegible]	23.7	10.4

SOURCE: Bureau of the Census, "Summary Characteristics for Governmental Units and Standard Metropolitan Statistical Areas," PHC80-3-36, September 1982.

Table 39

Low Income and Dependency in the Population by County, Data from the 1980 Census

Incidence of Low Income 1/

(Percent of civilian population below 125 percent of the poverty level)

Dependency 2/ Ratio	Hi Incidence 41.4-29.3% Counties		Med Hi 29.2-22.6% Counties		Medium 22.4-19.4% Counties		Med Lo 19.0-16.1% Counties		Lo Incidence 15.9-10.6% Counties		Total
	Number	Name	Number	Name	Number	Name	Number	Name	Number	Name	Number
Hi 1.025 to .916	4	Benson Emmons Roulette Sioux	4	McHenry Nelson Renville Wells	2	Eddy Pierce	0		0		10
Med Hi .909 to .864	3	Grant Logan McIntosh	2	Burke LaMoure	4	Cavalier Golden Valley Mountrail Towner	2	Foster Ranson	0		11
Medium .856 to .828	1	Kidder	2	Hettinger Dickey	2	Bottineau McLean	5	Bowman Divide Griggs Pembina Sargent	2	Ramsey Traill	11
Med Lo .825 to .728	2	Sheridan Slope	2	Adams Dunn	3	Barnes McKenzie Walsh	2	Oliver Steele	1	Morton	11
Lo .722 to .553	0		1	Billings	0		2	Grand Forks Richland	7	Burleigh Cass Mercer Stark Stutsman Ward Williams	10
Total Counties	10		11		11		11		10		53

1/ The 1980 census collected annual income data for 1979. In 1979, 125 percent of the poverty level for a non-farm family of four was $8,375.

2/ Persons aged <17 and >65/persons aged 18-64.

Table 40
Low Income and Population Change by County, Data From the 1980 Census

Percent Population Change 1970-1980	Incidence of Low Income 1/ (Percent of population at or below 125 percent of the poverty level)										
	Hi Incidence		Med Hi		Medium		Med Lo		Lo Incidence		Total
	41.4-29.3%		29.2-22.6%		22.4-19.3%		19.0-16.1%		15.9-10.6%		
	Counties		Counties		Counties		Counties		Counties		
	Number	Name	Number	Name	Number	Name	Number	Name	Number	Name	Number
Substantial Population Loss -23.7 to -13.4%	5	Emmons Grant Logan McIntosh Slope	3	Adams Burke Hettinger	1	Eddy	2	Divide Steele	0		11
Moderate Population Loss -13.0 to -7.2%	2	Kidder Sheridan	4	LaMoure McHenry Nelson Wells	4	Cavalier Golden Valley Mountrail Towner	2	Griggs Sargent	0		12
Minor Population Loss -6.2 to -0.5%	1	Benson	3	Billings Dunn Renville	4	Barnes Bottineau Pierce Walsh	3	Foster Pembina Ransom	1	Ward	12
Stable-Moderate Population Gain 0.03 to 8.2%	2	Rolette Sioux	1	Dickey	0		3	Grand Forks Oliver Richland	3	Ramsey Stutsman Traill	9
Population Gain 8.7 to 52.6%	0		0		2	McKenzie McLean	1	Bowman	6	Burleigh Cass Mercer Morton Stark Williams	9
Total	10		11		11		11		10		53

1/ These data are derived from 1980 census. The 1980 census collected annual income information for 1979. In 1979, 125 percent of the poverty level for a non-farm family of four was $8,375.

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